



No: /2022 File No. 738-2022

*according to distribution list*

**DECISION No. / 2 0 2 2 P**

Chairperson of the Nuclear Regulatory Authority of the Slovak Republic (hereinafter referred to as "Chairperson of the ÚJD SR"), as a second-instance authority pursuant to Section 61 (2) of Act No 71/1967 Coll. on Administrative Procedure (Administrative Procedure Code), as amended ('the Administrative Procedure Code'), in accordance with Section 61(3) and Section 59(2 & 3) of the Administrative Procedure Code on the appeal of a party to the proceedings of the GLOBAL2000 Friends of the Earth, Austria Neustiftgasse 36 1070 Wien; represented by Mag. Agnes Zauner ('GLOBAL2000') of 1 June 2021, supplemented by the appeal of 11 June 2021

**Dismisses the Appeal and  
Upholds the Decision No. 156/2021,**

by which the Nuclear Regulatory Authority of the Slovak Republic (hereinafter referred to as "ÚJD SR") issued for Slovenské elektrárne, a.s., Company Reg. No.: 358 29 052, with their registered office at Mlynské Nivy 47, 821 09 Bratislava 2, with their place of business Plant Units 3&4 of the Mochovce power plant, 935 39 Mochovce, registered in the Commercial Register of the District Court Bratislava 1, registration no.: Sa 2904/B (hereinafter referred to as "Slovenské elektrárne, a.s."),

**(A) authorization for radioactive waste and spent nuclear fuel handling pursuant to Section 5(3), item f) of Act No. 541/2004 Coll. on the peaceful use of nuclear energy (Atomic Act) and on amendments to certain acts as amended (hereinafter referred to as the "Atomic Act") in the scope of objects and facilities for operation of the Unit 3 and within the scope of objects and facilities common to Units 3&4 serving the operation of Unit 3, including the fresh fuel node and for nuclear materials (fresh nuclear fuel) handling pursuant to Section 5(3), item g) of the Atomic Act, in the scope of objects and facilities for operation of Unit 3, and within the scope of objects and facilities common to Units 3&4 serving the operation of Unit 3, except for the fresh fuel node (nuclear material handling in the scope of fresh nuclear fuel handling and storage in the fresh fuel node was authorised by decision of the ÚJD SR No. 277/2018, which was confirmed by ÚJD SR Decision No. 140/2019 P)**

**and**

**(B) authorisation for the commissioning of a nuclear installation pursuant to Section 5(3), item b) of the Atomic Act within the scope of objects and facilities for the operation of Unit 3, and within the scope of objects and facilities common to Units 3&4 serving the operation of Unit 3 and consent to the physical start-up phase pursuant to Section 5(2), item b) of the Atomic Act,**

**in the scope of objects and facilities for operation of Unit 3 and within the scope of objects and facilities common to Units 3&4 serving the operation of Unit 3,**

**and**

**and pursuant to Sections 121(2), item e) and 83 of Act No. 50/1976 on Spatial Planning and Building Regulations (Building Act), as amended (hereinafter referred to as the “Building Act“)**

**(C) permit for early use of Nuclear power plant Mochovce WWER 4x440 MW Project 3, in the scope of objects and facilities for operation of Unit 3, and within the scope of objects and facilities common to Units 3&4, serving the operation of Unit 3, for the period until the final building approval decision is issued.**

Pursuant to Sections 5(5) and 8(1), item c) of the Atomic Act, the ÚJD SR binds the permit (B) for the commissioning of a nuclear installation within the scope of objects and facilities for the operation of Unit 3, and within the scope of objects and facilities common to Units 3&4, serving the operation of Unit 3 to fulfil the following condition, the fulfilment of which will be ensured by Slovenské elektrárne, a.s. with the deadline specified.

B.1 Obligation to complete the tests "Activation and setting of neutron boric acid solution analysers for Unit 3 of NPP Mochovce" according to the valid "Boromer Control (Calibration) Methodology and EXCORE External Neutron Source Detector Test" according to the "Comprehensive EXCORE System Test" programme. Testing of these facilities can be carried out only after the creation of the relevant technical and organizational conditions on Unit 3, on which the Public Health Authority of the Slovak Republic (hereinafter referred to as "ÚVZ SR") issued a binding opinion No. OOZPŽ/5413/2020. These technical and organizational conditions will be fulfilled by Slovenské elektrárne, a.s., in accordance with the schedule of preparation of Unit 3 for commissioning within a reasonable time before the first fuel assembly is loaded into reactor of Unit 3, and at the same time, the obligation to complete the tests according to the P001 programmes (Programme of tests and erection works of the reactor and on the equipment of the concrete shaft of the reactor) and 3P004 (Program for handling steel samples of reactor pressure vessel), completion of which, for technological reasons, is included in the preparation phase of the reactor for fuel loading and also tests according to the 3P142 programme ("Primary Circuit Measurement Test Programme"), the completion of which is linked to the achievement of the shutdown concentration of boric acid in the primary circuit of Unit 3 before the fuel is loaded into the reactor,

**and, at the same time,**

the obligation to complete tests of systems and facilities of the turbine hall and downstream equipment of the secondary circuit according to the list and in accordance with the timetable drawn up by Slovenské elektrárne, a.s., and which is more precisely specified in the report on the readiness of objects and equipment for the operation of Unit 3, and the objects and facilities common to Units 3&4 serving the operation of Unit 3, confirming the readiness of the above-mentioned facilities for the commissioning of Unit 3 for the stages both of physical start-up and power testing (hereinafter referred to as the „Final Report of Unit 3“), according to Annex 1, Section C, item s) of the Atomic Act, and in accordance with Annex 4 Section B (I) A par. 5 and 7 of ÚJD SR Decree No. 430/2011 Coll. on Nuclear Safety Requirements, as amended by Decree No. 103/2016 Coll. (hereinafter referred to as “Decree No. 430/2011 Coll.“). The equipment and systems in question are currently in

a preservation mode, which protects them from corrosion attack or in the Unit condensate treatment system (hereinafter referred to as 'BÚK') is undergoing additional modifications to improve its operational characteristics. Slovenské elektrárne, a.s. will abolish the preservation mode of these facilities within a reasonable time before the first fuel assembly is loaded into reactor of Unit 3, so that sufficient time is created to complete the necessary tests and, at the same time, the exposure of these devices to corrosion processes is minimized, and, at the same time, will ensure, in accordance with the schedule, the testing of BÚK and the downstream equipment and systems, so that their tests are fully completed as of the start the power testing of the Unit

and, at the same time,

the obligation to complete the test of equipment according to 3P146 "Program of chemical monitoring system tests" after finetuning of software (hereinafter referred to as "SW").

Condition B.1 is to be fulfilled by Slovenské elektrárne, a.s. no later than by the start of the commissioning of Unit 3, except for the part of it in which it is expressly stated that it is to be fulfilled by the start of the power testing of the Unit, and which is related to the completion of modifications of the BÚK. Slovenské elektrárne, a.s. are obliged to document the fulfilment of condition B.1 by a written evaluation of the test progress and compliance with the criteria for their success, which are to be submitted to the ÚJD SR in the format of an addendum to the Final Report of Unit 3. Failure to comply with condition B.1 results in incapacity of the nuclear installation to start the physical start-up phase or incapacity to start the power testing phase (in that part of condition B.1, where it is explicitly stated and which relates to the BÚK). The commencement of the physical start-up phase without fulfilling condition B.1 may be classified as an administrative offense pursuant to Section 34(2) or (3) of the Atomic Act.

## **Reasoning**

### **I.**

1. The ÚJD SR, based on the application of Slovenské elektrárne, a. s. dated 12 December 2016, ref. SE/2016/077759, registered by ÚJD SR under reg. No. 7604/2016 in file No. 3720-2016, initiated administrative proceedings on 12 December 2016 concerning the application for the issue of:

- permit for radioactive waste (hereinafter referred to as "RAW") and spent nuclear fuel (hereinafter referred to as "SNF") handling pursuant to Section 5 (3), item f) of the Atomic Act within the scope of objects and facilities for operation of Unit 3, and within the scope of objects and facilities common to Units 3&4 serving the operation of Unit 3, including the fresh fuel node (hereinafter referred to as "Administrative Proceedings No. 2.1"),

- permit for the commissioning of nuclear installation pursuant to Section 5 (3), item b) of the Atomic Act within the scope of objects and facilities for operation of Unit 3, and in the scope of objects and facilities common to Units 3&4 serving the operation of Unit 3 (hereinafter referred to as "Administrative Proceedings No. 2.2"), permit for early use of the building according to Section 83 of the Building Act, and under Section 5(3), item b) of the Atomic Act, and Section 19(3) of the Atomic Act, within the scope of objects and facilities for operation of Unit 3, and in the scope of objects and facilities common to Units 3&4 serving the operation of Unit 3 (hereinafter referred to as "Administrative Proceedings No. 2.3").

2. In a letter dated of 12 December 2016, ref. SE/2016/077759, Slovenské elektrárne, a. s. requested, in addition to issuing permits in administrative proceedings No. 2.1, 2.2 and 2.3, to issue additional permits:

- permit for nuclear materials handling in the nuclear installation Nuclear Power Plant Mochovce, WWER 4x440 MW, Project 3, within the scope of fresh nuclear fuel handling and storage in the fresh fuel node, room No. A407 pursuant to Section 5(3), item g) of the Atomic Act (hereinafter referred to as “Administrative Proceedings No. 1.1“),

- permit for the commissioning of nuclear installation within the scope of fresh fuel handling and storage in the fresh fuel node, room No. A407 pursuant to Section 5(3), item b) of the Atomic Act (hereinafter referred to as “Administrative Proceedings No. 1.2“),

- permit for an early use of the building in accordance with Section 83 of the Building Act and pursuant to Section 5(3), item b) and Section 19(3) of the Atomic Act, parts of the building in the scope of fresh nuclear fuel handling and storage in the fresh fuel node (hereinafter referred to as “Administrative Proceedings No. 1.3“),

- permit for RAW and SNF handling pursuant to Section 5(3), item f) of the Atomic Act within the scope of objects and facilities for the operation of Unit 4 and in the scope of objects and facilities common to Units 3&4 serving the operation of Unit 4 (hereinafter referred to as “Administrative Proceedings No. 3.1“),

- permit for the commissioning of nuclear installation pursuant to Section 5(3), item b) of the Atomic Act within the scope of objects and facilities for the operation of Unit 4 and in the scope of objects and facilities common to Units 3&4 serving the operation of Unit 4 (hereinafter referred to as “Administrative Proceedings No. 3.2“),

- permit for an early use of the building in accordance with Section 83 of the Building Act, and pursuant to Section 5(3), item b) of the Atomic Act and Section 19(3) of the Atomic Act in the scope of objects and facilities for the operation of Unit 4, and in the scope of objects and facilities common to Units 3&4 serving the operation of Unit 4 (hereinafter referred to as “Administrative Proceedings No. 3.3“).

3. The ÚJD SR informed all parties and other authorities concerned in writing of the opening of the above mentioned administrative proceedings.

The issue of permit in administrative proceedings Nos. 1.1, 1.2, 1.3, 3.1, 3.2, and 3.3 is not the subject of this Decision. Proceedings Nos. 1.1, 1.2, and 1.3 were closed by the issuing of second-instance decisions Nos. 139/2019 P and 140/2019 P of 6 May 2019, which became valid on 22 May 2019.

4. By letter reg. No. 608/2017 of 31 January 2017, the first-instance administrative authority requested the Chairperson of ÚJD SR as the administrative appellate authority in accordance with Section 58(1) and Section 61(2) of the Administrative Procedure Code, following Section 49(2) of the Administrative Procedure Code, for an extension of the time limit for a decision in administrative proceedings Nos. 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1, 3.2 and 3.3, by 6 months. The first-instance administrative authority justified their request by a large scope of documentation to be assessed, and also by the large number of conformity checks to be carried out in order to confirm conformity of the actual workmanship of the equipment with the design, in order to fully comply with Section 46 of the Administrative Procedure Code, which provides that the decision must be based on a reliably established state of affairs. The Chairperson of ÚJD SR complied with the request of the first instance administrative authority and extended the period for the decision by 6 months. The parties and other authorities concerned were informed of the extension of the time limit for the decision by ÚJD SR

letters reg. No. 623/2017 of 1 February 2017, reg. No. 778/2017, 779/2017, and 780/2017 of 7 February 2017.

5. Documentation of administrative proceedings Nos. 2.1, 2.2, and 2.3 and other administrative proceedings related to the application of Slovenské elektrárne, a. s. to issue a permit for the commissioning of a nuclear installation (Administrative Proceedings Nos. 1.1, 1.2, 1.3, 3.1, 3.2, and 3.3) with sensitive information removed, as defined in Section 3(16&17) of the Atomic Act, and in accordance with Section 8(3) of the Atomic Act, was disclosed by ÚJD SR from 16 March 2017 to 30 June 2017 in rented premises in Mochovce.

6. After assessing the submitted documentation, ÚJD SR concluded that Slovenské elektrárne, a. s. had to complete their submission and interrupted the administrative proceedings Nos. 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1, 3.2, and 3.3 by ÚJD SR Decision No. 334/2017 of 23 August 2017. At the same time, ÚJD SR called Slovenské elektrárne, a. s., pursuant to Section 19(3) of the Administrative Procedure Code, to remedy those deficiencies of the submissions identified in ÚJD SR Decision No. 334/2017.

7. The deficiencies of submission in administrative proceedings No. 2.1 were set out in Annex 1 to the letter of ÚJD SR reg. No. 5263/2017 of 22 August 2017 concerning the documentation for the administrative proceedings submitted (Document on ensuring RAW handling, including its financial coverage, RAW and SNF Handling Plan, Pre-Operational Safety Report of MO3&4 (hereinafter referred to as "POSAR of MO3&4"), Certificates and work orders of Slovenské elektrárne, a. s., for the performance of work activities for professionally competent staff). By Decision No. 334/2017 on the stay of administrative proceedings, ÚJD SR set as a condition for the continuation in the administrative proceedings No. 2.1, to remedy the deficiencies in the given documentation no later than by 15 February 2018. The deficiencies of submission in administrative proceedings No 2.2 were set out in Annex 2 to the letter of ÚJD SR reg. No. 5263/2017 of 22 August 2017 concerning the documentation submitted for the administrative proceedings (Testing Programs for selected equipment determined by ÚJD SR, Commissioning Programs, Operating Procedures designated by ÚJD SR, POSAR of MO3&4 and Probabilistic Safety Assessment – PSA). By Decision No. 334/2017 of 23 August 2017 on the stay of administrative proceedings, ÚJD SR set as a condition for the continuation of administrative proceedings No. 2.2, to remedy deficiencies in the given documentation by 15 February 2018 and, at the same time, to remedy the deficiencies in the documentation of the administrative proceedings No. 2.1, also by 15 February 2018.

8. At the same time, by Decision No. 334/2017 of 23 August 2017, the ÚJD SR called Slovenské elektrárne, a. s. to complete the submission in the administrative proceedings No. 2.1 by protocols on successful testing of equipment for RAW and SNF handling for Unit 3 operation, and within the scope of facilities common to Units 3&4, and serving the operation of Unit 3, including the fresh fuel node, and a schedule of further tests of these facilities to be carried out before the start of commissioning of Unit 3. These protocols and schedule were requested by ÚJD SR to be submitted according to the current state of the tests as of the same date as the requested evaluation of Unit 3 equipment testing, or preliminary proof of readiness of systems and equipment of Unit 3 for commissioning (in administrative proceedings No. 2.2), at latest by 12 months from the date of ÚJD SR Decision No. 334/2017.

ÚJD SR also called Slovenské elektrárne, a. s. to supplement the submission in administrative proceedings No. 2.2 with the following particulars:

- 1) evaluation of tests of Unit 3 systems and equipment or preliminary proof of readiness of Unit 3 systems and equipment for commissioning, confirming a high degree of its readiness for the start of stage part of inactive testing for Unit 3 (hydraulic test No. 1). ÚJD SR requirements for evaluation or submission of a preliminary proof on the readiness of Unit 3 systems were set out in Annex 3 to the ÚJD SR letter reg. No. 5263/2017 of 22 August 2017,
- 2) documents confirming compliance with the qualification requirements of staff of Slovenské elektrárne, a. s. for carrying out activities with direct impact on nuclear safety (selected staff of Slovenské elektrárne, a. s.) and with impact on nuclear safety (professionally competent staff of Slovenské elektrárne, a. s.) for commissioning of Unit 3. The requirements of ÚJD SR to confirm compliance with the qualification requirements of staff of Slovenské elektrárne, a. s. were set out in Annex 3 to the letter of ÚJD SR reg. No. 5263/2017 of 22 August 2017.

ÚJD SR called Slovenské elektrárne, a. s. to complete the submission under points 1) and 2) no later than 12 months from the date of the decision on the stay of administrative proceedings. The ÚJD SR specified in its Decision No. 334/2017 of 23 August 2017, as a condition for continuation of administrative proceedings No. 2.2, to remedy the deficiencies in the documentation of the administrative proceedings No. 2.1 with the deadline of 15 February 2018. Deficiencies of submission in administrative proceedings Nos. 1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 3.1, 3.2, and 3.3 were published on the website of ÚJD SR.

9. Slovenské elektrárne, a. s. have continuously submitted documentation to ÚJD SR with remedied deficiencies. ÚJD SR continuously evaluated the elimination of deficiencies in the documentation. The removal of deficiencies in the documentation of administrative proceedings No. 2.1 and 2.2 has been confirmed in writing, as follows:

- in the document on ensuring RAW handling, including its financial coverage by letter reg. No. 395/2018 of 22 January 2018,
- in the RAW and SNF handling plan by letter reg. No. 766/2018 of 7 February 2018,
- in POSAR MO3&4 by letter reg. No. 768/2018 of 13 February 2018,
- in the certificates and work orders of Slovenské elektrárne, a. s. for the performance of work activities for professionally competent staff by letters reg. No. 100/2018 of 8 January 2018 and 396/2018 of 22 January 2018,
- in the programs of testing selected equipment designated by ÚJD SR in letter reg. No. 767/2018 of 8 February 2018,
- in the commissioning programs, by letter reg. No. 769/2018 of 13 February 2018,
- in the operating procedures designated by ÚJD SR in letter reg. No. 771/2018 of 13 February 2018,
- in the Probabilistic Safety Assessment – PSA by letter reg. No. 896/2018 of 14 February 2018,
- in proof of ownership and organizational structure by letter reg. No. 396/2018 of 22 January 2018.

By the above mentioned letters, ÚJD SR confirmed that the deficiencies in the documentation of Slovenské elektrárne, a. s. were eliminated duly and on time (i.e. before 15 February 2018) in compliance with the requirement contained in the Decision on the stay of administrative proceedings.

10. On 28 August 2018, Slovenské elektrárne, a. s. supplemented their submission concerning the application for permits pursuant to the operative part of the draft decision (administrative proceedings Nos. 2.1 and 2.2) and also in the administrative proceedings for Unit 4 (administrative proceedings Nos. 3.1 and 3.2). ÚJD SR carried out a preliminary evaluation of completed submission in administrative proceedings Nos. 2.1, 2.2, 3.1, and 3.2, based on which ÚJD SR stated that Slovenské elektrárne, a. s. by completing missing elements in submission of 28 August 2018, fulfilled all the conditions specified by ÚJD SR Decision No. 334/2017 of 23 August 2017 for the continuation of the proceedings in question.

11. Consequently, ÚJD SR by letters reg. Nos. 5913/2018, 5918/2018, 5921/2018 of 19 September 2018, and 6048/2018 of 26 September 2018, notified all parties in writing that the administrative proceedings Nos. 2.1, 2.2, 3.1, and 3.2 continue from 28 August 2018. At the same time, by these letters ÚJD SR informed the parties that the documentation for the decision in administrative proceedings Nos. 2.1, 2.2, 3.1, and 3.2 will be published on the website of ÚJD SR as a “basis for the decision on Units 3&4” no later than on 28 September 2018, and invited them to comment in writing on the documentation forming the basis for the decision no later than on 28 October 2018. The ÚJD SR published the documentation for the decision on its website in accordance with the specified deadline. In the supporting documentation for the decision published on the website of ÚJD SR, the method of remedying the deficiencies in the documentation and the follow-up to the recommended conditions of the Ministry of Environment of the Slovak Republic (hereinafter only as “MoEnv SR”) mentioned in the Final Opinion (No. 395/2010-3.4/hp) of 28 April 2010 issued by MoEnv SR (hereinafter referred to as the “Final Opinion on EIA MO3&4”) pursuant to Act No. 24/2006 Coll. on environmental impact assessment and on amendments to certain laws as amended (hereinafter referred to as “Act No. 24/2006 Coll.”) was published.

12. After fulfilling the conditions for the continuation of administrative proceedings Nos. 2.1, 2.2, 3.1, and 3.2, the ÚJD SR assessed the documentation of administrative proceedings Nos. 2.1 and 2.2 in the following scope:

- a) Identification data according to Section 6 par. 1b) of the Atomic Act.
- Slovenské elektrárne, a. s. submitted the relevant identification data required by Section 6(1), item b) of the Atomic Act in a submission of 12 December 2016. In the supplemented submission of 22 June 2018 Slovenské elektrárne, a. s. confirmed that the above data remain unchanged compared to the data submitted on 12 December 2016. On 26 April 2021, an extract from the Register of Legal Entities, Entrepreneurs and Public Authorities was requested under Act No. 177/2018 Coll. on certain measures to reduce administrative burden through the use of public administration information systems and on amendments to certain laws (law against red-tape), as amended by Act No. 221/2019 Coll. (hereinafter referred to as the “Act No. 177/2018 Coll.”), which verified the accuracy of the data in question. The requested extract from the Register of Legal Entities, Entrepreneurs and Public Authorities contains data in accordance with Section 6(1), item b) of the Atomic Act.

b) Description of activity, for which permission is sought pursuant to Section 6 par. 1 © of the Atomic Act.

- Slovenské elektrárne, a.s., clearly defined the activities, for which it applied for permits. These include the permit for the management of RAW and SNF pursuant to Section 5 par. 3 (f) of the Atomic Act in the scope of buildings and facilities for the operation of Unit 3 and in the scope of buildings and facilities common to Units 3&4 used for operation of Unit 3, including the fresh fuel node, the permit for the commissioning of nuclear installation pursuant to Section 5 par. 3 (b) of the Atomic Act in the scope of buildings and facilities to operate Unit 3, and in the scope of buildings and facilities common to Units 3&4 used for operation of Unit 3, and the permit for an early use of the building pursuant to Section 83 of the Building Act and pursuant to Section 5 par. 3 (b) of the Atomic Act, and Section 19 par. 3 of the Atomic Act in the scope of buildings and facilities for operation of Unit 3, and in the scope of buildings and facilities common to Units 3&4 used for operation of Unit 3. These activities were defined by Slovenské elektrárne, a. s. in its submission dated 12 December 2016. The data in question are in accordance with Section 6, par. 1 (c) of the Atomic Act.

c) Data necessary to request an extract from the criminal record of a natural person, a legal entity and a person, who is a statutory body or member of a statutory body of a legal entity pursuant to Section 6 par. 2 (a) of the Atomic Act.

- Slovenské elektrárne, a.s., submitted extracts from the Criminal Record of the General Prosecutor's Office of the Slovak Republic of all members of the statutory body of the company, and an extract from the criminal record of the legal entity, Slovenské elektrárne, a. s. on 12 December 2016. All listings were without record. Updated extracts were submitted also in the supplemented submission of 22 June 2018. On 6 May 2021 an extract from the criminal record was requested for the legal entity – Slovenské elektrárne, a. s. and all members of the company's statutory body pursuant to Act No. 177/2018 Coll. For foreign members of the Company's statutory body, Slovenské elektrárne, a.s. submitted extracts from the criminal records of natural persons to ÚJD SR on 29 April 2021. Slovenské elektrárne, a.s. at the same time submitted affidavits of members of the statutory body on their legal capacity.

d) Extract from the Commercial Register of companies pursuant to Section 6 par. 2 (b) of the Atomic Act by 31 August 2018.

- Slovenské elektrárne, a.s., submitted an extract from the Commercial Register of the District Court Bratislava I as of 17 May 2018. On 26 April 2021 an extract from the Register of Legal Persons, Entrepreneurs and Public Authorities was requested pursuant to Act No. 177/2018 Coll., which verified the accuracy of the data in question.

e) Proof of functional technical equipment of Slovenské elektrárne, a. s., for the required activity according to Section 6 par. 2 I of the Atomic Act.

- Slovenské elektrárne, a.s., submitted to ÚJD SR documents confirming readiness for the management of RAW, SNF and nuclear materials and for commissioning of Unit 3. The results of the previous testing of systems and equipment needed for the management of RAW, SNF and nuclear materials, and for commissioning of Unit 3, are summarized in the document "Final Report on Unit 3". This document demonstrates compliance with the requirements of Annex 4 part B (I) (A) par. 5, 7 and 9 of the Decree No. 430/2011 Coll. including proof of staff readiness. The latest revision of the Final Report for Unit 3 was submitted by Slovenské elektrárne, a. s. to the ÚJD SR inspectors at its premises in Mochovce for inspection purposes in May 2021 with letter of 03 May 2021, which was registered by ÚJD SR under reg. No. 3214/2021. Inspectors of ÚJD SR carried out an evaluation of



the Final Report of Unit 3 during their inspection in Mochovce. The outcome of the evaluation is that the Final Report of Unit 3 demonstrates the readiness of facilities for the management of RAW, SNF and nuclear materials and for commissioning of Unit 3. Part of the tests to be carried out before commissioning of the Unit, will be carried out in accordance with the technical or organizational conditions for its implementation at a later date, but before loading the first fuel assembly into the reactor of Unit 3. ÚJD SR reflected this fact into the conditions of the decision (Condition B.1), including the relevant explanation /reasoning.

f) Proof that Slovenské elektrárne, a. s., has permanent staff with the required qualification according to Section 6 par. 2 € of the Atomic Act, and proof of the number of permanent staff together with their qualification pursuant to Section 6 par. 2 (i) of the Atomic Act.

- Slovenské elektrárne, a.s., submitted part of the requested documents in the supplement of the submission from 28 August 2018. This documentation was not complete, as the training of specially qualified staff and professionally qualified staff was ongoing by that date. In November and December 2019 as well as in December 2020, ÚJD SR carried out inspection at Slovenské elektrárne, a. s. in MO3&4, focusing on staffing job positions having impact on nuclear safety in the departments of future operation, asset management and engineering support of future operation of Unit 3. During this inspection, Slovenské elektrárne, a. s. submitted documents proving the following:

All job positions of specially qualified staff under Section 24 par. 2 of the Atomic Act, who are necessary for the operation of Unit 3, are staffed by employees with completed training. These staff members have valid certificates of special professional competence pursuant to Section 8 of ÚJD SR Decree No. 52/2006 Coll. on professional competence as amended (hereinafter only as “Decree No. 52/2006 Coll.”), and authorization for performance of work activities pursuant to Section 10 of the Decree No 52/2006.

The job positions of professionally qualified staff pursuant to Section 24 par. 1 of the Atomic Act in the departments of future operation, asset management and engineering support of the future operation of Slovenské elektrárne, a. s. for MO3&4, are staffed by employees to the extent necessary for operation of Unit 3. The number of vacancies does not exceed the normal values of turnover and filling of these posts is addressed by Slovenské elektrárne, a. s. on a continuous basis. These staff members have completed their training and have authorization for performance of work activities pursuant to Section 10 of the Decree No. 52/2006.

Slovenské elektrárne, a.s., proved the readiness of staff for the management of RAW, SNF and nuclear materials, and for commissioning of Unit 3 in the Final Report on Unit 3. In August 2020, the ÚJD SR inspectors carried out inspection that confirmed the readiness of the staff for the management of RAW, SNF, and nuclear materials, and commissioning of Unit 3. The update of the Final Report of Unit 3 was submitted by Slovenské elektrárne, a.s. to ÚJD SR inspectors in April 2021 at its premises in Mochovce for inspection purposes. After reviewing the document, ÚJD SR states that the Final Report of Unit 3 confirms staff readiness of Slovenské elektrárne, a.s. for commissioning of Unit 3, in accordance with Section 6, par. 2 € of the Atomic Act.

g) Proof of ensuring RAW management, including its financial coverage pursuant to Section 6 par. 2 (f) of the Atomic Act.

- Slovenské elektrárne, a.s., submitted a document on the provision of RAW management, including its financial coverage in the submission dated 12 December 2016. ÚJD SR requested complementing certain data (listed in the list of deficiencies of submission in Annex 1 to letter reg. No. 5263/2017). Subsequently, Slovenské elektrárne, a. s. supplemented the required data by letter No. SE/2017/065026 dated 13 November 2017. ÚJD SR carried out inspection No. 230/2017, which resulted in confirmation of the completeness and correctness of the completed data. ÚJD SR

confirmed the removal of the deficiencies of the submission by letter reg. No. 395/2018 of 22 January 2018.

h) Proof of ownership and organizational structure of Slovenské elektrárne, a. s. pursuant to Section 6 par. 2 (g) of the Atomic Act.

- Slovenské elektrárne, a.s., submitted extract from the Commercial Register of the District Court Bratislava I of 17 May 2018 and organizational structure and systemization of MO3&4 and Unit B4000 – Preparation of Units 3&4 Operation – by letter ref. SE/2017/062611 dated 2 November 2017. On 6 May 2021 an extract from the Register of Legal Entities, Entrepreneurs and Public Authorities was requested pursuant to Act No. 177/2018 Coll.

- Systemization of MO3&4 and Unit B4000 was checked by ÚJD SR inspection held in November – December 2019. The result of the ÚJD SR inspection was that the submitted systemization to the required extent documents the organizational structure of Slovenské elektrárne, a. s. in accordance with Section 6 par. 2 (g) of the Atomic Act. Part of the inspection was submitting systemization in the departments of future operation, asset management and engineering support of future operation for Unit 3.

- Systemization of the departments of operation, asset management and engineering support is part of the Final Report of Unit 3, which was submitted to the ÚJD SR inspectors in May 2021 in the premises of Slovenské elektrárne, a.s. in Mochovce. The result of the ÚJD SR inspection is that the Final Report of Unit 3 documents, to the required extent, the organizational structure of Slovenské elektrárne, a. s. in accordance with Section 6 par.2 (g) of the Atomic Act.

i) Documentation required for the application for commissioning pursuant to Section 6 par. 2 (h) of the Atomic Act, Annex 1 /C:

I. Limits and Conditions for safe operation – approved by ÚJD SR Decision No. 88/2018 of 24 April 2018. Changes in the operating procedure: Limits and Conditions, related to the incorporation of a permit for the release of radioactive materials, arising from the operation of Units 1, 2 and 3 of the Mochovce nuclear installation from administrative control by discharging them into the environment (No. OOPŽ/4603/2019 of 15 October 2019) and minor editing of the text, approved by ÚJD SR by Decision 205/2020 of 17 July 2020. Changes in the operating procedure – Justification of the Limits and Conditions for Units 3&4 were approved by the ÚJD SR Decision No. 72/2021 of 26 February 2021.

II. List of safety-related equipment divided into safety classes – approved by ÚJD SR Decision No. 495/2016 of 19 September 2016. At this stage, ÚJD SR agrees to the submitted document. The document will be updated based on the results of commissioning of Unit 3.

III. Programs of testing of safety-related equipment determined by ÚJD SR – testing programs for safety-related equipment determined by ÚJD SR were submitted by Slovenské elektrárne, a. s. for Unit 3 as part of the submission of 12 December 2016. ÚJD SR made comments on the programs in question, which it classified as deficiencies of the submission. For the removal of these deficiencies it determined a deadline by Decision No. 334/2017 of 23 August 2017 to suspend administrative proceedings, by no later than 15 February 2018. Slovenské elektrárne, a. s. continuously submitted documentation to the ÚJD SR with remedied deficiencies. ÚJD SR confirmed the removal of deficiencies in the submission by letter reg. No. 767/2018 dated 8 February 2018. After incorporating the ÚJD SR comments, the testing programs are in accordance with the requirements of Annex 4, Part B Section I (G) par. 1 of Decree No. 430/2011 and Section 15 of Decree 58/2006, laying down details on the scope, content and method of preparation of documentation of nuclear installations necessary for individual decisions, as amended (hereinafter referred to as “Decree 58/2006“).

IV. Program of commissioning of a nuclear installation broken down into stages – The Program of Commissioning of Nuclear Installation broken down into stages, was submitted by Slovenské elektrárne, a. s., for Unit 3 as part of the submission of 12 December 2016. ÚJD SR had comments on the program and related physical start-up and power testing programs, which it classified as deficiencies of submission and set a deadline to remedy the deficiencies of the submission by Decision No. 334/2017 of 23 August 2017 to suspend administrative proceedings by 15 February 2018 at the latest. Slovenské elektrárne, a. s. submitted gradually to the ÚJD SR documentation with remedied deficiencies. ÚJD SR confirmed removal of deficiencies of submission by letter reg. No. 769/2018 of 13 February 2018. ÚJD SR reviewed the program of commissioning of a nuclear installation divided into stages in proceedings concluded by Decision No. 298/2018, which was confirmed by the appeal decision No. 139/2019P. Slovenské elektrárne, a. s. submitted a new revision of the document - by letter ref. SE/2019/050644 dated 18 September 2019, Program for Commissioning Unit 3 broken down into stages (rev. 04). Compared to the previous revision of the document in question, revision 04 includes pre-operational tests for the power testing stage of Unit 3. ÚJD SR assessed the document and stated compliance with the requirements of Annex 4 part B (I) (A) (8) and G (1) of the Decree No. 430/2011 and Section 15 of Decree No. 58/2006. ÚJD SR approved the above-mentioned change to the program of commissioning the nuclear installation MO3&4 by a separate Decision No. 478/2019 of 18 December 2019. By letter ref. SE/2019/067197 of 6 December 2019 Slovenské elektrárne, a. s. submitted to ÚJD SR changes in individual programs of physical start-up and power testing of Unit 3. These changes resulted from the evaluation of the course of inactive tests of facilities that are needed at the stage of commissioning of Unit 3. ÚJD SR reviewed the changes in the programs of physical start-up and power testing and found deficiencies in them. By letter reg. No. 1915/2020 of 12 March 2020, ÚJD SR requested Slovenské elektrárne, a. s. to remedy those deficiencies. Slovenské elektrárne, a. s. sent a letter ref. SE/2020/029357 of 04 June 2020 with programs of physical start-up and power testing without deficiencies identified by ÚJD SR. ÚJD SR reviewed remedied programs of physical start-up and power testing, based on which it stated compliance with the requirements of Annex 4 part B (I) (A) par. 8 and G par. 1 of the Decree No. 430/2011 and Section 15 of the Decree No. 58/2006. ÚJD SR confirmed this fact in letter reg. No. 5772/2020 of 21 August 2020 sent to Slovenské elektrárne, a. s. Slovenské elektrárne, a. s. submitted by letter ref. SE/2020/061995 dated 10 December 2020 to ÚJD SR new revision of the program 3F002 “Reactor core loading program of NPP Mochovce Unit 3”. ÚJD SR evaluated the new revision of the program 3F002 and based on this evaluation it states that changes in the program are in compliance with Annex 4 Part B (I) (A) (8) and G (1) of the Decree No. 430/2011 and Section 15 of the ÚJD SR Decree No. 58/2006. ÚJD SR confirmed this by the letter ref. 153/2020 dated 14 January 2021 that was sent to Slovenské elektrárne, a. s. The commissioning program divided into stages with all the above-mentioned changes incorporated was approved by ÚJD SR by Decision No. 148/2021.

V. Program of operational inspections of safety-related equipment – ÚJD SR approved the program of operational inspections by its Decision No. 264/2020 of 22 September 2020.

VI. Documentation of the quality management system of Slovenské elektrárne, a. s. – approved by ÚJD SR Decision No. 60 of 18 February 2021 (Management System Manual of SE, a. s.) and No. 208/2019 of 8 July 2019 (Staged quality assurance program of MO3&4 for the construction and commissioning).

VII. The operating procedures identified by ÚJD SR – submitted by Slovenské elektrárne, a. s. for Units 3&4 as part of the submission dated 12 December 2016. ÚJD SR had comments on these procedures, which it classified as deficiencies of the filing. In order to remedy the deficiencies of the

submission, it determined a deadline by its Decision No. 334/2017 to suspend administrative proceedings, by 15 February 2018 at the latest. Slovenské elektrárne, a. s. gradually submitted documentation to ÚJD SR with removed deficiencies. ÚJD SR confirmed removal of deficiencies of the submission by letter reg. No. 771/2018 of 13 February 2018. The operating procedures specified by ÚJD SR, after deficiencies remedied, are in compliance with Section 18 of the Decree No. 58/2006. Slovenské elektrárne, a. s. submitted to ÚJD SR by the letter ref. SE/2020/061697 dated 9 December 2020 new revision of operating procedures “Neutron-Physics Core Parameters of Unit 3, 1<sup>st</sup> Fuel Load” (1<sup>st</sup> edition, revision 6), procedure “Nuclear Safety Rules for Fuel Handling” (2<sup>nd</sup> edition, revision 1) and the procedure “Refuelling Program and Physical Start-up” (1<sup>st</sup> edition, revision 3). ÚJD SR evaluated changes in the above stated procedures, based on what it states that changes in the procedures are in compliance with Annex 4 Part B (I) (A) (8) and G (1) of the Decree No. 430/2011 and Section 15 of the ÚJD SR Decree No. 58/2006. ÚJD SR confirmed this by its letter ref. 153/2020 dated 14 January 2021 that was sent to Slovenské elektrárne, a.s.

VIII. On-site Emergency Plan – approved by ÚJD SR Decision No. 16/2020 of 14 January 2020. The On-site Emergency Plan shall enter into force on the date of final permit for the commissioning of nuclear installation MO34. Until the start of commissioning of MO34, the Preliminary On-site Emergency Plan, approved by ÚJD SR Decision No. 401/2019 of 12 November 2019, is in force.

IX. POSAR of MO34 – was submitted by Slovenské elektrárne, a. s. as part of the submission of 12 December 2016. ÚJD SR had comments on PSR of MO3&4, which it classified as deficiencies of the submission and determined the deadline for remedying those deficiencies by its Decision No. 334/2017 of 23 August 2017 to suspend the administrative proceedings, as 15 February 2018 at the latest. Slovenské elektrárne, a. s. submitted the PSR of MO3&4 documentation to ÚJD SR with removed deficiencies by letter ref. SE/2017/065735 of 15 November 2017. ÚJD SR confirmed removal of deficiencies in the submission by letter reg. No. 768/2018 of 13 February 2018. Slovenské elektrárne, a. s. submitted to ÚJD SR with a letter ref. SE/2019/059184 of 30 October 2019, the new revision of some documents, which are part of the PSR of MO3&4. ÚJD SR reviewed the changes in the latest revision of PSR of MO3&4 compared to the revision of the document in question, which was submitted to ÚJD SR by letter No. SE/2017/065735 of 15 November 2017. Changes made to the PSR of MO3&4 meet the conditions required by Section 19 of the Decree No. 58/2006, and the addition to the submission meets the requirements of Section 9 par. 3 of the ÚJD SR Decree No. 431/2011 on the Quality Management System, as amended by the Decree No. 104/2016 (hereinafter only as the “Decree No. 431/2011”). The reason for the changes in PSR of MO3&4 is the incorporation of the results of inactive tests into the PSR of MO3&4. ÚJD SR confirmed this fact to Slovenské elektrárne, a. s., by letter reg. No. 7140/2020 of 30 October 2020. After incorporating the changes, PSR of MO3&4 is in full compliance with the requirements of Section 19 of Decree No. 58/2006.

X. Probabilistic safety assessment of operation for nuclear installations with a nuclear reactor for the shutdown reactor and for low power levels, as well as for full power of the reactor (hereinafter only as “PSA”) – was submitted by Slovenské elektrárne a. s. as part of the submission of 12 December 2016. ÚJD SR had comments on the PSA, which it classified as deficiencies of the submission. For the removal of deficiencies it specified a deadline by ÚJD SR Decision No. 334/2017 of 23 August 2017 to suspend administrative proceedings. Slovenské elektrárne, a. s. gradually submitted documentation to ÚJD SR with removed deficiencies and ÚJD SR confirmed partial elimination of deficiencies in the submission by letter reg. No. 896/2018 of 14 February 2018. ÚJD SR requested the addition to a probabilistic safety assessment of extreme meteorological conditions

and earthquakes. Slovenské elektrárne, a. s. submitted to ÚJD SR the requested extension of PSA by letter ref. SE/2019/062019 of 12 November 2019. ÚJD SR reviewed submitted supporting documentation, based on which it stated their compliance with the requirements of Section 20 of the Decree No. 58/2006 and safety guides of ÚJD SR, Requirements for the development of a PSA (BNS I.4.2/2017).

XI. Physical Protection Plan, including a contract with the Police Force pursuant to Section 7 par. 5 and Section 26 par. 10 of the Atomic Act. ÚJD SR Decision No. 154/2018 of 24 May 2018 approved the document "Physical Protection Plan of MO3&4 UČP/fresh fuel node", 1<sup>st</sup> edition, revision 0. ÚJD SR Decision No. 280/2018 of 10 October 2018 approved a change in the document "Physical Protection Plan of MO3&4 UČP", 1<sup>st</sup> edition, revision 0, within the scope of the document sent "Physical Protection Plan of MO3&4 UČP", 1<sup>st</sup> edition, revision 1. ÚJD SR Decision No. 134/2019 of 13 May 2019 approved change in the document "Physical Protection Plan of MO3&4 UČP", 1<sup>st</sup> edition, revision 0, and a change approved by ÚJD SR within the scope of the document sent "Physical Protection Plan of MO3&4 UČP", 1<sup>st</sup> edition, revision 2. ÚJD SR Decision No. 39/2020 of 30 January 2020 approved a change in the physical protection plan of MO3&4 UČP within the scope of the document "Physical Protection Plan of MO3&4 UČP", 1<sup>st</sup> edition, revision 3. ÚJD SR decision no. 328/2020 of 2 December 2020, approved changes in physical protection plan for MO3&4 UČP in the extent of the submitted document "Physical Protection Plan for MO3&4 UČP" 1<sup>st</sup> edition, revision 4. ÚJD SR Decision No. 260/2018 of 14 September 2018 approved the "Physical Protection Plan of SE-MO3&4", 1<sup>st</sup> edition, revision 0. ÚJD SR Decision No. 281/2018 of 10 October 2018 approved a change to the document "Physical Protection Plan of SE-MO3&4", 1<sup>st</sup> edition, revision 0, within the scope of the document sent "Physical Protection Plan of SEMO3&4", 1<sup>st</sup> edition, revision 1, and Decision No. 133/2019 of 13 May 2019 approved change to the document "Physical Protection Plan of SE-MO3&4", 1<sup>st</sup> edition, revision 0, and its change approved by ÚJD SR within the scope of document sent "Physical Protection Plan of SE-MO3&4", 1<sup>st</sup> edition, revision 2. ÚJD SR Decision no. 178/2020 of 6 June 2019 approved changes in physical protection plan for MO3&4 in extend of the submitted document "Physical Protection Plan for SE-MO3&4" 1<sup>st</sup> edition, revision 3. ÚJD SR Decision no. 329/2020 of 2 December 2020 approved changes in physical protection plan for MO3&4 in the extent of submitted document "Physical Protection Plan for SE-MO3&4" 1<sup>st</sup> edition, revision 4.

XII. RAW and SNF Management Plan, including their transport – was submitted by Slovenské elektrárne, a. s. as part of the submission of 12 December 2016. ÚJD SR had comments on the RAW and SNF Management Plan, including their transport, which it classified as deficiencies of the submission. To eliminate these deficiencies, it determined a deadline by Decision No. 334/2017 of 23 August 2017 to suspend administrative proceedings. Slovenské elektrárne, a. s. submitted documentation to ÚJD SR with removed deficiencies. ÚJD SR confirmed removal of deficiencies of submission by letter reg. No. 766/2018 of 07 February 2018. On 8 November 2019, Slovenské elektrárne, a. s. submitted to ÚJD SR by letter ref. SE/2019/061205, an updated document "RAW and SNF Management Plan, including their transport" PNM34483541 rev. 01, as a response to amendments to generally binding legislation that have occurred since the submission of the original application. ÚJD SR accepted incorporated changes in accordance with the requirements of Section 21 of the Decree No. 58/2006, which it confirmed by sending letter reg. No. 1143/2020 dated 12 February 2020.

XIII. Conceptual Decommissioning Plan – submitted by Slovenské elektrárne, a. s. as part of submission of 12 December 2016. ÚJD SR reviewed this document and had no requirements to supplement or modify this document. In November 2019, Slovenské elektrárne, a. s. – by sending

letter ref. SE/2019/061205 ÚJD SR, submitted an updated Conceptual Decommissioning Plan, as a response to amendments to generally binding legislation that have occurred since the submission of the original application. ÚJD SR identified deficiencies in the submitted Conceptual Decommissioning Plan, and requested Slovenské elektrárne, a. s. to eliminate those deficiencies in the Final version of the Conceptual Decommissioning Plan, where the eliminated deficiencies are identified by ÚJD SR, Slovenské elektrárne, a. s. by letter ref. 2020/016057 of 16 March 2020. ÚJD SR gave favourable opinion on the document, Conceptual Decommissioning Plan for the nuclear installation Mochovce NPP Units 3&4, PNM34483534 rev. 02 by letter reg. No. 2821/2020 of 30 April 2020. In this letter, the ÚJD SR states that the document, Conceptual Decommissioning Plan for the nuclear installation Mochovce NPP Units 3&4, PNM34483534 rev. 02, meets the requirements of Section 22 of the Decree No. 58/2006. A further update of the Conceptual Decommissioning Plan document, which incorporates additional comments of the National Nuclear Fund of the Slovak Republic in its chapter M, was submitted by Slovenské elektrárne, a.s. by letter SE/2021/011018 of 26 March 2021. ÚJD SR expressed a favourable opinion on the document in question – Conceptual Decommissioning Plan of the nuclear facility of NPP Mochovce, Units 3&4 by letter reg. under 2661/2021 of 15 April 2021. In this letter ÚJD SR states that the document, Conceptual Decommissioning Plan of the nuclear facility of NPP Mochovce, Units 3&4, PNM34483534, rev.03, meets the requirements of Section 22 of Decree No. 58/2006.

XIV. Proof of the provision of financial cover for liability for nuclear damage, excluding repository under a specific regulation — compliance is provided in par. 11) of the Reasoning.

XV. Training System – last change implemented to the training system for the staff of the license holder was approved by ÚJD SR Decision No. 327/2018 of 28 November 2018, and ÚJD SR Decision No. 186/2020 of 24 June 2020.

XVI. Training programs for selected staff – changes implemented were approved by ÚJD SR Decision No. , No. 393/2016 of 27 July 2016, No. 355/2017 of 25 September 2017, No. 25/2018 of 13 February 2018, and No. 335/2020 of 14 December 2020, and No.336/2020 of 9 December 2020.

XVII. Training Programs for professionally qualified staff – were approved by ÚJD SR Decision No. 123/2016 of 22 March 2016 and No. 315/2018 of 28 November 2018.

XVIII. Proof of fulfilment of qualification requirements of selected staff and professionally competent staff – Slovenské elektrárne, a. s. submitted part of the required documents in the supplement to the submission of 28 August 2018. This documentation was not complete, as the training of specially qualified staff and professionally qualified staff was still ongoing as of the given date. In November and December 2019, ÚJD SR conducted inspection at Slovenské elektrárne, a. s., MO3&4, focusing on staffing of job positions having impact on nuclear safety in the department of future operation, asset management and engineering support for future operation of Unit 3. During this inspection, Slovenské elektrárne, a. s. submitted documentation demonstrating the following facts:

- All job positions of specially qualified staff pursuant to Section 24 par. 2 of the Atomic Act, who are necessary for the operation of Unit 3, are staffed by employees with completed professional training. These employees have valid certificates of special professional competence pursuant to Section 8 of the Decree No. 52/2006, and authorization to perform work activities pursuant to Section 10 of the Decree No. 52/2006.

- Job positions of professionally qualified staff pursuant to Section 24 par. 1 of the Atomic Act in the departments of future operation, asset management and engineering support for future operation of MO3&4, are staffed by employees to the extent necessary for the operation of Unit 3. The number of

vacant job positions does not exceed the normal values of fluctuation and staffing of these positions is continuously being dealt with by Slovenské elektrárne, a. s. The workers have completed training and hold authorizations for performance of work activities pursuant to Section 10 of the Decree No. 52/2006.

Slovenské elektrárne, a.s., documented the readiness of its staff for the management of RAW, SNF and nuclear materials and for the commissioning of Unit 3 in the Final Report for Unit 3. In August 2020, ÚJD inspectors carried out inspection confirming the readiness of the personnel for the management of RAW, nuclear materials, SNF and commissioning of Unit 3.

The update of the Final Report of Unit 3 was submitted by Slovenské elektrárne, a.s. to ÚJD SR inspectors in May 2021 in its premises in Mochovce for inspection purposes. The result of the inspection is the statement of ÚJD SR that the Final Report of Unit 3 confirms staff readiness of Slovenské elektrárne, a.s. for commissioning of Unit 3 in accordance with Section 6, par. 2 I of the Atomic Act. The Final Report of Unit 3 documents the staff readiness in accordance with the requirements of Section 10 par. 1 and 2 of Decree No. 52/2006. Documenting the fulfilment of the requirements of Section 6 par. 2 (h) of the Atomic Act according to Annex 1, Part C, par. I of the Atomic Act and the control of its fulfilment is identical with the documentation of the fulfilment of the requirements of Section 6, par. 2 I, (i) of the Atomic Act and the control of its fulfilment.

XIX. Proof of readiness for commissioning – Slovenské elektrárne, a. s. submitted documentation to ÚJD SR – protocols on testing of facilities. The inspection of the course of testing of facilities, and of protocols on their testing took place during ÚJD SR inspections at Mochovce. The subject of the inspection was the implementation and results of programs of inactive testing:

3P001	Program of tests and reactor erection work and reactor concrete shaft equipment	Completed to the extent of the current state of reactor preparation for commissioning. Will be completed as scheduled in the final stage of reactor preparation for commissioning
3P002	Program of tests of HRK drives	Program completed
3P004	Program for handling steel samples of reactor pressure vessel	Completed to the extent of the current state of reactor preparation for commissioning. Will be completed as scheduled in the final stage of reactor preparation for commissioning
3P005	Program of tests and settings on steam generators	Program completed
3P006A	Program of tests and settings of primary circuit equipment – main circulation water pumps	Program completed

3P006B	Program of tests and settings of primary circuit equipment – main circulation pipes and main shut-off valves	Program completed
3P007	Testing and Setup Program for oil management system of main circulation pumps	Program completed
3P008	Testing and Setup Program for equipment of the pressurizer system	Program completed
3P009	Equipment and manipulator testing program	Program completed
3P010	Test Program for equipment for reception, storage and transport of fresh fuel	Program completed
3P011	Test Program for sampling system for checking hermetic cover	Program completed
3P012	Test Program for equipment of reactor fuel loading machine	Program completed
3P013	Test Program for transport of reactor internals and of reactor upper block	Program completed
3P014	Test Program for equipment for replacement of absorbent parts of ARK control and extension rods	Program completed
3P015	Test Program of the reactor main dividing plate screw tightener	Program completed
3P016	Program of start-up work for transport equipment, inspection and tests of HRK drives	Program completed
3P017	Test Program for handling ionization chambers	Program completed
3P019	Test Program for the system of SNF storage and handling	Program completed
3P020	Program of testing equipment for preparation of transport container for SNF removal	Program completed
3P021	Program of testing continuous purification system of primary circuit water	Program completed
3P022	Program of testing the make-up system for the primary circuit and boric acid control	Program completed
3P023	Test Program for oil management system make-up pumps	Program completed
3P024	Program of functional tests for the spent fuel pool cooling system	Program completed
3P025	Test Program for hydrogen burning system	Completed to the extent of inactive testing
3P026	Test Program of organized leak system of primary circuit	Program completed
3P027	Test Program of the KWA system for flushing ASRTP sensors	Program completed
3P028	Test Program of steam generators blowdown system	Completed to the extent of inactive testing



3P029	Program of tests of primary circuit drainage water purification system	Completed to the extent of inactive testing
3P030	Test Program for active water collection system	Program completed
3P031	Evaporator test program	Program completed
3P032	Test Program of condensate purification from evaporator	Program completed
3P033	Test Program of purified condensate system	Program completed
3P034	Functional tests of ŠOV-4 system, ŠOV-4 purification	Program completed
3P035	Test Program of boron concentrate purification	Program completed
3P036	Test Program for the make-up system of boron concentrate	Program completed
3P037	Program for testing the chemicals preparation system	Program completed
3P038	Test Program for treatment station for technological venting	Completed to the extent of inactive testing
3P039	Test Program of water treatment station for the pool and the emergency system tanks	Program completed
3P040	Test Program of blowdown treatment station system of steam generators – filters	Program completed
3P041	Program of tests for emergency systems make-up and core cooling	Program completed
3P042	Test Program of primary circuit cooldown after seismic event	Program completed
3P043	Test Program of pressure relief system in hermetic spaces and leaks localization	Program completed
3P044	Test Program of intermediate cooling system, main circulation pumps	Program completed
3P045	Test Program of intermediate drives cooling system	Program completed
3P046 A, B, C, D	RAW management programs	Program completed
3P047	Test Program of technological venting system of tanks (KPP)	Program completed
3P051A	Functional Test Program of Operational diagnostics A, Unit 3	Completed to the extent of inactive testing
3P051B	Functional Test Program of Operational diagnostics B, Unit 3	Program completed
3P051C	Functional Test Program of Operational diagnostics C, Unit 3	Program completed
3P051D	Functional Test Program of Operational diagnostics D, Unit 3	Program completed
3P051E	Functional Test Program of Operational diagnostics E, Unit 3	Program completed

3P051F	Functional Test Program of Operational diagnostics F, Unit 3	Program completed
3P051H	Functional Test Program of Operational diagnostics H, Unit 3	Program completed
3P051N	Functional Test Program of Operational diagnostics N, Unit 3	Completed to the extent of inactive testing
3P051R	Functional Test Program of Operational diagnostics R, Unit 3	Program completed
3P052	Test Program of emergency support centres	Program completed
3P053A, B, C	Functional Test Program of radiation control in the main generating unit – Unit 3, retrofitting and electrical part	Program completed
3P054	Test Program for room and equipment decontamination, Unit 3	Program completed
3P055	Functional Test Program of sampling system	Program completed
3P056A	Functional Test Program of HVAC systems of hermetic zone	Completed to the extent of inactive testing
3P056B	Functional Test Program of HVAC systems of the airtight zone	Completed to the extent of inactive testing
3P056C	Functional Test Program of HVAC air supply systems	Program completed
3P056D	Functional Test Program of radiation control room ventilation	Program completed
3P056E	Functional Test Program of HVAC for the building of active auxiliary operations	Program completed
3P057	CCTV functional test program	Program completed
3P058	Functional Test Program for measurement of hydrogen concentration in the hermetic zone	Program completed
3P059	Functional Test Program for ASFES Unit 3	Program completed
3P060	Program of passivation of internal surfaces of primary circuit during 2. HS	Program completed
3P061A	Test of gravity filling of the spent fuel cooling pool from flumes of the system to localize accidents	Program completed
3P061B	Test of opening connection from A301/1 to A201/1	Program completed
3P061C	Verification of operation of valves of emergency venting of steam generators and reactor	Program completed
3P061D	Verification of the functional capability of JMN pumps in flow mode to spraying collector	Program completed
3P061E	Test of coolant drain from bubbler flume to the floor of steam generator box	Program completed

3P062A	Testing the throughput of super-emergency supply routes using pumps of the Plant Fire Unit	Program completed
3P062B	Testing throughput of gasoline pumps from coolant pool to the ESW system	Program completed
3P063A	Verifying the ability to cool the primary circuit with PSA PG, PV PG system and low-pressure emergency make-up system	Program completed
3P063B	Verifying configuration of system of emergency source of coolant and its ability to replenish the coolant according to the design	Program completed
3P063C	Test of gravity replenishment of water to steam generators from supply tanks	Program completed
3P064	Functional Test Program of pneumatic quick-acting valves – Unit 3	Program completed
3P065	Functional test of valves and drive controllers	Program completed
3P066	Comprehensive ESFAS tests, Unit 3	Program completed
3P067	Program of APS testing in the stage of inactive tests and start-up	Program completed
3P069	Recovery of temporary 6kV power supply from EMO 2	Program completed
3P070	110 kV substation, EMO1-3	Program completed
3P071	Standby transformer 63 MVA, Unit 3	Program completed
3P072	400kV substation, 300 MVA transformers, 32 MVA, Unit 3	Program completed
3P073	Test Program for the first connection of TG31, Unit 3	Completed to the extent of inactive testing
3P074	Test Program for the first connection of TG32, Unit 3	Completed to the extent of inactive testing
3P075	Test Program for the start of commissioning VS switchboards, Unit 3	Program completed
3P076	Secured power supply category 1, Unit 3	Program completed
3P077	High voltage switchboard, Unit 3	Program completed
3P077B	High voltage switchboard, Unit 3, interconnections	Completed to the extent of inactive testing
3P078	Low voltage switchboard, unit 3	Program completed
3P079	Essential Service Water System, pumping station and forced draft cooling towers, Unit 3	Program completed
3P080	System of non-essential cooling water, pumping station and cooling towers Unit 3	Program completed
3P081	Cooling water Unit 3, functional tests program	Program completed
3P082	Distribution system for demi water, 1 Mpa, Unit 3	Completed to the extent of inactive testing
3P083	Secondary circuit HVAC systems, Unit 3	Program completed

4P084	Test Program "Mobile Diesel Generator for Unit 4"	Program completed
3P085	Turbine hall condensate collection tank, Unit 3	Program completed
3P086	Main condensate system	Program will be completed after cancellation of the secondary circuit conservation mode
3P087	Super emergency power supply, Unit 3	Program completed
3P088	Power supply system, Unit 3	Completed to the extent of inactive testing
3P089	Live steam system, Unit 3	Completed to the extent of inactive testing
3P090	Generator with auxiliaries	Completed to the extent of inactive testing
3P091A,B	Functional test of TG I&C, Unit 3	Completed to the extent of inactive testing
3P092, 3P093	Turbine functional test program	Completed to the extent of inactive testing
3P094	ASDR terminal tests	Completed to the extent of inactive testing
3P095	Program of generator with auxiliaries functional tests	Completed to the extent of inactive testing
3P096	DGS, Unit 3	Program completed
3P096A	Functional test of DGS I&C, Unit 3	Program completed
3P096B	Test Program for DG Unit 3 – electric part	Program completed
3P096C	Diesel generator Unit 3 – HVAC systems	Program completed
3P097	Test Program for EPS	Program completed
3P098	Low-pressure compressed air system, Unit 3	Program completed
3P099	Turbine vacuum system	Completed to the extent of inactive testing
3P100	Test Program for the Central Electrical Control Room, Unit 3	Program completed
3P101	Communication equipment and data network, Unit 3	Program completed
3P102	Distribution of technical gases	Program completed
3P103	Primary circuit cooldown system, Unit 3	Program completed
3P105	Chemical treatment of condensate (BÚK)	Additional modifications are underway on the system, program will be completed by the start-up of turbine hall (start of power testing)
3P106	HP air Program, Unit 3	Program completed
3P107	Sampling system Unit 3	Completed to the extent of inactive testing

3P110	Steam from auxiliary boiler room, Unit 3	Completed to the extent of inactive testing
3P111A	Integral test of I&C system, secondary circuit	Completed to the extent of inactive testing, except BUK. Will be completed by the start-up of turbine hall (start of PT)
3P114	Functional tests of terminals from 6 kV and 0.4 kV switchboards for power supply of consumers of nuclear island	Program completed
3P122	Comprehensive tests electrical, Unit 3 under load	Program completed
3P127	Program of functional tests of essential and non-essential service water distribution, Unit 3	Program completed
3P133A, B	TXS system functional test program	Program completed
3P134	Switchgear (24 V) power supply test program for safety systems – Individual Test “B”	Program completed
3P135A	Test Program of reactor limitation system – Individual Test “B”	Program completed
3P135B	Test Program of reactor limitation system	Program completed
3P136	Test Program of post-accident monitoring system PAMS/SAMS	Program completed
3P137A1	EXCORE system test program	Completed to the extent of inactive testing
3P137A2	Comprehensive test program of EXCORE system	Implementation will be completed after the establishment of controlled zone
3P137B	INCORE, Functional test program	Program completed
3P137B1	INCORE, Integral tests program	Completed to the extent of inactive testing
3P137C	Program of functional tests of neutron solution analyzers for NAR-I	Implementation will be completed after the establishment of controlled zone
3P137C1	Program FuS PTK Boron	Program completed
3P137D	Program of functional tests RVLMS, CETM system	Program completed
3P137D2	RVLMS, Program FuS power supply equipment	Program completed
3P137E	INCORE, MS-S, Program of functional tests of power supply equipment	Program completed
3P137F	MS-S, Functional tests program	Program completed
3P137F1	MS-S, Integral tests program	Program completed
3P138A, B	Program of functional tests of TXS and AO RTB switches	Program completed
3P139	Program of testing the integration of bus-interconnected systems	Program completed

3P140A, B	Program test of reactor power management system RCS	Program completed
3P141A	Test Program for the main control system NI+CI – T2000 – Individual test “B”	Program completed
3P141B	Test Program of the main control system of nuclear and conventional island	Completed within the scope of inactive tests, except BÚK part. Will be completed at the start-up of the turbine hall (start of PT) Completed to the extent of inactive testing. Verification of the H3BO3 concentration measurements needs to be added. Technologically linked to increase in boric acid concentration to shutdown state. Will be completed before the start of commissioning
3P142	Test Program of primary circuit measurements	Program completed
3P143	Test Program for seismic monitoring system	Program completed
3P144A	Test Program “loop check” – TXS	Program completed
3P144B	Test Program “loop check” – T2000	Completed to the extent of inactive testing, except BÚK. Will be completed to the start-up of turbine hall (start of PT)
3P145	Program of testing electromagnetic compatibility of primary circuit	Program completed
3P146	Test Program of chemical monitoring system – Individual Test “B”	Program implementation not completed. Will be completed before the start of commissioning
3P147	MCS Single time system	Program completed
3P148	Test Program for TXS system resistance	Program completed
3P149	Functional test of the autonomous control and management system for secondary circuit HVAC	Program completed
3P150	Functional test of autonomous HVAC unit of split type ( SPLIT )	Program completed
3P160	Secondary switchboards, LV, Unit 3, nuclear island	Program completed
3P161	Program of functional tests of heat removal system and combustion products – Unit 3	Program completed
8P056F	Program of functional tests of HVAC, A/C and I&C	Program completed
8P094	Test Program for ASDR system, common part	Program completed
8P115	Sludge conditioning	Program completed to the extent of operational requirements

8P116	Fire water system, seismically not resistant	Status stated in 8P116A, B, C, D, E.
8P116A	Fire extinguishing tests for Unit transformers	Program completed
8P116B	Fire extinguishing tests for stand-by transformers and station consumption transformers	Program completed
8P116C	Program of functional tests of fixed fire extinguisher for water mist seismically not resistant – Unit 3	Program completed
8P116D	Foam fixed fire extinguishers, oil tanks for TG	Program completed
8P116E	Fixed fire extinguisher seismically not resistant	Completed to the extent of inactive testing
8P117	Fire water system seismically resistant	Program completed
8P117A	Program of functional tests of fixed fire extinguisher for water mist seismically resistant – Unit 3	Program completed
8P117B	Program of functional tests of fixed fire extinguisher FM200 seismically resistant – Unit 3	Program completed
8P117C	Program of functional tests of foam fixed fire extinguisher, DGS – Unit 3	Program completed
8P118	Chilled water system 6/12 °C	Program completed
8P119	Raw water treatment, Units 3&4	Program completed,
8P120	Back-up water source	Program completed
8P121	Common diesel generator, Units 3&4	Program completed
8P121A	Common diesel generator – electric part	Program completed
8P121B	Separate I&C, common diesel generator	Program completed
8P125	Test of power supply and control of consumers designed to deal with severe accidents	Program completed
8P126	Functional test of autonomous system of high pressure air control and management	Program completed
8P128	Test of communication with the single time system	Program completed
8P129	HRS power loss test	Program completed
8P130	Functional test of HRS control system	Program completed
3P200	Pressure test program for detachable parts of the primary circuit	Program completed
3P201	Program of cold hydraulic test	Program completed
3P202	Program of Unit 3 minor revision	Program completed
3P203	Program of hot hydraulic test, Unit 3	Program completed
3P204	Program of extended revision, Unit 3	Continuation after completion of PC conservation
3P205	Program for measuring hydraulic characteristics of primary circuit, R and VCR at 2. HS	Program completed
3P206	Determination of flow distribution unevenness	Program completed
3P207	Program of chemical regimes in individual stages of inactive tests	Program completed

Note: I&C – Instrumentation and Control

When compared to the draft Decision in matters concerning the application of Slovenské elektrárne, a.s. for the issuance of a permit in administrative proceedings no. 2.1, 2.2, and 2.3, which was published as part of the supporting documentation for the Decision of 22 January 2021, the implementation of programs 3P019, 3P20 and 3P059 was completed. This fact is reflected in the table above. Other programs, the implementation of which is not completed for various reasons, are listed in condition B.1 of this Decision. The relevant reasons are set out in the text of condition B.1 of this Decision.

Some facilities testing programs are designed so that a certain part of the tests included in these programs can be performed only after the fuel loading into the Unit 3 reactor. The evaluation of the state of implementation of these programs in the table above "Implementation completed within the scope of inactive tests" means that all prescribed tests for the inactive test stage are completed. Facilities according to these programs are ready for commissioning to the prescribed extent.

Proof of readiness, as well as the testing of equipment according to individual programs of inactive tests, were verified by ÚJD SR inspectors during inspections in Mochovce. Several of these programs are of omni-professional nature, and cannot be clearly assigned to specific permits under this Decision, namely the permit for commissioning of Unit 3 (in the operative part of the Decision designated as B), or the permit for the management of RAW, SNF and the management of nuclear materials – fresh nuclear fuel (in the operative part of the Decision designated as A). An example of such programs of inactive tests are the following programs: 3P065, 3P068, 3P070, 3P071, 3P072, 3P076, 3P077, 3P078, 3P080, 3P098, 3P114, 3P142, 3P145, 3P146, 3P160, 8P116, 8P116E, 8P117B and other, verifying the operability of equipment common to the operation of the Unit, RAW and SNF management, as well as fresh fuel management. Some of the equipment test programs can be clearly assigned to permits (A) or (B) from the operative part of this Decision according to the purpose of the tested equipment. RAW management equipment tests include programs 3P046A, B, C, D, 3P056E and 3P030. Testing of equipment for SNF management include the following programs: 3P019, 3P020 and 3P024. Testing of equipment for the management of nuclear materials within the scope of fresh fuel, excluding the fresh fuel node, include programs 3P010 and partly also 3P012.

Part of the activities related to the management of nuclear material (fresh nuclear fuel) is carried out outside the fresh fuel node, and is therefore beyond the scope of the permits for the management of fresh nuclear fuel in the fresh fuel node, authorized by ÚJD SR by its Decisions No. 277/2018 and No. 298/2018 of 29 October 2018, and confirmed by ÚJD SR appeal Decision No. 139/2019 P and No. 140/2019 P of 6 May 2019. Slovenské elektrárne, a. s. has installed equipment, which is designed to manage fresh nuclear fuel outside the fresh fuel node and performs its testing. Taking these facts into account, and applying appropriately Section 19 par. 2 of the Code of Administrative Procedure, ÚJD SR issues by this Decision also permit for the management of nuclear materials (fresh nuclear fuel) pursuant to Section 5 par. 3 (g) of the Atomic Act within the scope of objects and facilities for the operation of Unit 3, and in the scope of objects and facilities common to Units 3&4 used for operation of Unit 3, excluding the fresh fuel node (management of nuclear material in the scope of handling and storage of fresh nuclear fuel in the fresh fuel node, ÚJD SR Decision No. 277/2018, confirmed by ÚJD SR Decision No. 140/2019 P).

XX. Population Protection Plans in case of incident or accident of nuclear installation, Nuclear Power Plant Mochovce, in the territorial districts of Banská Bystrica and Nitra Regions – reviewed



by ÚJD SR Decision No. 135/2020 of 1 April 2020 and No. 232/2020 of 27 July 2020 and approved by the Ministry of Interior of the SR on 8 September 2020 No. SKR-COPK2-2020/405-14 and on 27 November No. SKR-COPK2-2020/405-48.

XI. Demarcation of the boundaries of a nuclear installation – approved by ÚJD SR Decision No. 922/2014 of 12 December 2014.

XXII. Definition of the size of the Population Protection Zone – approved by ÚJD SR Decision No. 1040/2012 of 23 November 2012.

XXIII. Documentation under the Building Act – was gradually submitted to oral hearings connected with visual inspections (local survey) for individual buildings of Unit 3 and common objects to Units 3&4, that are needed for operation of Unit 3.

j) Documentation submitted according to the Building Act for early use of the building required by Section 6 par. 2 (j) of the Atomic Act.

- Slovenské elektrárne, a.s., submitted the documentation on oral hearings connected with visual inspections (local surveys) for individual objects of Unit 3 and common objects to Units 3&4, needed for operation of Unit 3.

k) Liability insurance for nuclear damage pursuant to Section 8 par. 1 and 2 of Act No. 54/2015 Coll. on civil liability for nuclear damage and its financial coverage, and on amendments to certain laws (hereinafter referred to as the “Act No. 54/2015 Coll.”).

- By letter ref. SE/2021/000479/Ov dated 7 January 2021, registered by ÚJD SR under Reg. No. 224/2021, Slovenské elektrárne, a. s. submitted notification on demonstration of financial coverage of operator liability for nuclear damage caused by an incident for the MO3&4 site, with effect from 1 January 2021, including the amount of the insurance contributions of the policyholders for that site. Annex to the letter was Insurance Contract No. EL044SR21 which covers the share of the coverage of the statutory limit of liability for nuclear damage of 59%. By letter dated 6 January 2021, registered by ÚJD SR under No. 296/2021, notification was received from the Slovak Nuclear Insurance Pool on provision of insurance cover for the nuclear operator’s liability for nuclear damage with a share of liability insurance coverage of 41 %. It is apparent from the documentation submitted that in the part of the obligation to cover liability for nuclear damage, the requirements for financial cover for nuclear liability are met in the prescribed manner and up to the limit laid down by the Act No. 54/2015 Coll.

l) Pursuant to Section 7 par. 5 of Atomic Act, a special condition for issuing permit according to Section 5 par. 3 (b), (f), (g) of Atomic Act, is the approval of the physical protection plan. ÚJD SR Decision No. 154/2018 of 24 May 2018 approved the document “Physical Protection Plan of MO3&4 UČP/fresh fuel node“, edition 1, revision 0. ÚJD SR Decision No. 280/2018 of 10 October 2018 approved a changes to the document “Physical Protection Plan for MO3&4 UČP“, edition 1, revision 0 to the extent of the document sent: “Physical Protection Plan for MO3&4 UČP“, edition 1, revision 1, and Decision No. 134/2019 of 13 May 2019, approved changes to the document “Physical Protection Plan for MO3&4 UČP“, edition 1, revision 0, and its change approved by ÚJD SR within the sent document “Physical Protection Plan for MO3&4 UČP“, edition 1, revision 2. ÚJD SR Decision No. 39/2020 of 30 January 2020 approved the change to the physical protection plan for MO3&4 UČP within the scope of the document “Physical Protection Plan for MO3&4 UČP“, edition 1, revision 3. The ÚJD SR Decision no. 328/2020 of 2 December 2020 approved changes in physical protection for MO34 UČP to the extent of submitted document “Physical Protection Plan for MO3&4 UČP” 1<sup>st</sup> edition, revision 2. The ÚJD SR Decision No. 260/2018 of 14 September 2018 approved the “Physical Protection Plan for SE-MO3&4“, edition 1, revision 0. ÚJD SR Decision No. 281/2018

of 10 October 2018 approved the change to the document “Physical Protection Plan for SE-MO3&4“, edition 1, revision 0 within the scope of the document “Physical Protection Plan for SE-MO3&4“, edition 1, revision 1, and ÚJD SR Decision No. 133/2019 of 13 May 2019 approved changes to the document “Physical Protection Plan for SE-MO3&4“, edition 1, revision 0, and its change approved by ÚJD SR within the scope of the document “Physical Protection Plan for SE-MO3&4“, edition 1, revision 2. ÚJD SR Decision no. 178/2020 of 6 June 2019 approved changes in physical protection plan for MO3&4 to the extent of the submitted document “Physical Protection Plan for SE-MO3&4“ 1<sup>st</sup> edition, revision 3. ÚJD SR Decision no. 329/2020 of 2 December 2020 approved changes in physical protection plan for MO3&4 to the extent of submitted document “Physical Protection Plan for SE-MO3&4“ 1<sup>st</sup> edition, revision 4. The justification for fulfilling this requirement is the same as fulfilling the requirement according to Section 26 par. 10 of the Atomic Act.

m) Information required by a special regulation - Treaty establishing the European Atomic Energy Community pursuant to Section 12 par. 5 of the Atomic Act.

- Slovenské elektrárne, a.s., submitted a letter SE/2016/067700 on sending of basic technical characteristics (hereinafter only as the “BTC“) ÚJD SR, and a letter SE/2016/007696 on sending BTC to the European Commission, with the attached Report on the basic technical parameters for MO3&4 site. The submission of the report is in accordance with Article 4 of Commission Regulation (Euratom) No. 302/2005 of 8 February 2005 on the application of the Euroatom safeguards scheme. BTC was updated as at 23 March 2018 and sent by Slovenské elektrárne, a. s., letter SE/2018/021092 of 5 April 2018, and then as at 27 August 2020.

- Slovenské elektrárne, a.s., submitted a report to ÚJD SR on the implementation of the project of surveillance equipment of the International Atomic Energy Agency (hereinafter referred to as the “IAEA“) and of the European Commission.

- The surveillance equipment was installed by a responsible staff member of the European Commission on 10 and 11 December 2019. The functionality of the IAEA and European Commission surveillance equipment was confirmed by IAEA and European Commission inspectors during international inspection No. 828/2020 held on 29 October 2020, which focused on the registration and control of nuclear materials.

Explanation of the division of administrative proceedings according to their substantive focus: By Decision No. 334/2017 of 23 August 2017 on the stay of the proceedings, ÚJD SR sub-divided the application of Slovenské elektrárne, a. s. for the issue of permits related to the commissioning of MO3&4 into administrative proceedings Nos. 1.1, 1.2 and 1.3 (related to the fresh fuel node), Nos. 2.1, 2.2 and 2.3 (related to Unit 3), and Nos. 3.1, 3.2 and 3.3 (related to Unit 4). The reason is the dual-unit structure of the MO3&4 plant, and the time sequence of anticipated activities during the gradual preparation of facilities and buildings of MO3&4 for commissioning. Part of the documentation submitted by Slovenské elektrárne, a. s. under administrative proceedings No. 2.1, 2.2, and 2.3 relate only to Unit 3 and facilities common to Units 3&4, which are needed for operation of Unit 3, part of the documentation demonstrated compliance with the requirements of the legislation in force not only for Unit 3 and common facilities to Units 3&4, which are needed for operation of Unit 3, but also for Unit 4, or for nuclear installation of MO3&4 as a whole – in particular documentation listed in points 7), 9f), 9h) to 9j), 9l) to 9o), 9t) to 9v), 11) and 12). ÚJD SR reviewed this documentation in full, which indeed exceeds the scope required for administrative proceedings No. 2.1, 2.2, and 2.3.

By letter reg. No. 7772/2018 dated 4 December 2018, the first-instance administrative authority requested the Chairperson of ÚJD SR as the Appellate Administrative Authority in accordance with Section 58 par. 1 and Section 61 par. 2 of the Code of Administrative Procedure for the extension of the time period for taking the decision in administrative proceedings No. 2.1, 2.2, 3.1, and 3.2 by 6 months pursuant to Section 49 par. 2 of the Code of Administrative Procedure. The first instance authority justified its request by the large extent of inspection activities to be carried out before the start of commissioning of Unit 3 of MO3&4, in order to fully comply with Section 46 of the Code of Administrative Procedure, which provides that the Decision must be based on a reliably established state of affairs. The Chairperson of ÚJD SR complied with the request of the first-instance administrative authority and extended the time period for taking the decision by 6 months. The parties and other authorities concerned were informed about the extension of the period by ÚJD SR letters reg. No. 157/2019, 158/2019 and 7058/2018 dated 7 January 2019.

The fulfilment of the conditions of the ÚJD SR Decision No. 266/2008, relating to Unit 3, is as follows:

- Conditions 1 and 2 (Condition 1 “In accordance with the best international practice, to complete the project of nuclear installation of Units 3&4 of Mochovce with reference scenario, involving deterministic effect from an external source, e.g. the impact of a small aircraft and submit it to ÚJD SR for review“, and Condition 2 “Based on a scenario developed according to Condition 1, assess the functional resilience potential of Units 3&4 design of NPP Mochovce, and apply appropriate additional systems, structures or components in the design, as well as NPP management strategies, in order to ensure its resilience to possible deterministic effects from an external source, e.g. deliberate impact of a small aircraft, so as to bring the project in line with the best international practice. Relevant changes to the basic design to be submitted to ÚJD SR in accordance with the applicable legislation“). Slovenské elektrárne, a. s. submitted the relevant documents to the ÚJD SR. Their contents is classified. ÚJD SR issued Decision No. 290/2010 of 16 August 2010, permitting the construction of two civil structures and protective barriers for Mochovce Units 3&4. Related documentation is subject to classified information regime pursuant to Act No. 215/2004 Coll. on the protection of classified information and on amendments to certain laws as amended (hereinafter only as “Act No. 215/2004 Coll.“), and for this reason it has not been disclosed to the public. ÚJD SR considers conditions 1 and 2 of the Decision No. 266/2008 to be fulfilled.
- Condition 3 (In accordance with established practice at Slovak nuclear installations in operation with good international practice, and with the recommendations given in the IAEA Doc. NS-G-1.10, to implement double seals on all hermetic doors and hermetic hatches at the containment boundaries of a nuclear installation Units 3&4, with the possibility of testing the space between the seals. The modification in question was implemented and its implementation was checked by the ÚJD SR inspectors directly in Mochovce.
- Conditions 4, 5 and 6 (Supplement more specified calculations of seismic resistance of equipment, whose seismic resistance is required by the basic design and their verification by an independent organization, develop instructions for authors of detail designs for calculations of anchoring components, whose seismic resistance is required and to ensure independent inspection of a detail designs of all operational sets containing seismically qualified components). Slovenské elektrárne, a. s. submitted the required documentation to ÚJD SR and ÚJD SR confirmed compliance with the conditions of the Decision No. 266/2008 in writing (ÚJD SR letter reg. No. 4989/2015 dated 6 August 2015 – Condition No. 4, letter reg. No. 443/320-150/2009 dated 4 May 2009 – Condition 5 and letter reg. No. 4989/2015 dated 6 August 2015 – Condition 6).

- Condition 7 (Ensure that re-assessment of nuclear safety is carried out at the next stages of the nuclear project in accordance with the requirement of Annex 3 part B (I) (A) (u) of the ÚJD SR Decree No. 50/2006, laying down details of nuclear safety requirements for nuclear installations during their siting, design, construction, commissioning, operation, decommissioning and when closing a repository, as well as criteria for categorization of safety related equipment into safety classes (hereinafter only as “Decree No. 50/2006”) in the text effective at the date of issue of the Decision No. 266/2008. This requirement is stated in Annex 3 part B (I) (A) par. 20 of the Decree No. 430/2011. Compliance with this condition was confirmed by ÚJD SR letter reg. No. 1104/320-353/2009. All modifications to the basic design are made by the author of the basic design, and the author of the basic design confirms the compliance of the design and the detail design documentation with the basic design. ÚJD SR approves the documentation of the license holder in accordance with the requirements of the Atomic Act and related ÚJD SR decrees. Nuclear safety assessment is contained in the PSR of MO3&4.

- Condition 8 (Take actions referred to in Chapter 7.5 of the Interim Safety Report to ensure a risk balance in terms of the probabilistic safety assessment between the power and no power states of operation of a nuclear installation. Technical report on the modifications made to be submitted to ÚJD SR) – this condition is fulfilled in the current revision of the PSA study. The risk between power and no power states is balanced.

Compliance with the conditions of ÚJD SR Decision No. 267/2008 is incorporated in the relevant chapters of PSR MO3&4, as follows:

- Condition 1 from the annex to the Decision (Add to the relevant part of Chapter 7 of PSR of MO3&4 a categorization of the list of postulated initiation events according to the frequency of possible occurrence as required by Annex 3, 3 Part B (I) (A) (l) of the Decree No. 50/2006 in force on the date of issue of the Decision No. 267/2008: – incorporated in Chapter 7.3.0 PSR of MO3&4. The above requirement of ÚJD SR Decree No. 50/2006 as in force at the date of Decision No. 267/2008, is identical with that of Annex 3 part B (I) (A) par. 12 of Decree No. 430/2011,

- Condition 2 from annex to the Decision (For analysed postulated initiation events to incorporate into the relevant part of Chapter 7 of PSR MO3&4, the requirement in accordance with Annex 3 part B (I) (B) (3) (a) of Decree No. 50/2006 in force on the date of issue of the Decision No. 267/2008 – is incorporated in Chapter No. 7.4 of PSR of MO3&4. The above requirement of Decree No. 50/2006 in force on the date of issue of the Decision No. 267/2008 in the current legislation is stated in Annex 3 Part B (I) (B) par. 3 (a) of Decree No. 430/2011,

- Condition 3 from the annex to the Decision (For analysed postulated initiation events to incorporate into the relevant part of Chapter 7 of PSR MO3&4, the requirement in accordance with Annex 3 part B (I) (B) par. 3 (c) of Decree No. 50/2006 in force on the date of issue of the Decision No. 267/2008 – is incorporated in Chapter 7.4 of PSR of MO3&4. The above requirement of Decree No. 50/2006 in force on the date of issue of the Decision No. 267/2008 in the current legislation is stated in Annex 3 part B (I) (B) par. 3 (c) of Decree No. 430/2011,

- Condition 4 from annex to the Decision (Add to the relevant part of Chapter 6 of PSR of MO3&4 an analysis of the effects of postulated initiation events for those systems and components, for which such an assessment is not specified, or to evaluate the possibility of influencing the operation of these systems and components in terms of the effect of external postulated initiation events in accordance with Annex 3 part B (I) (H) par. 7 of Decree No. 50/2006 in force on the date of issue of the Decision No. 267/2008 – incorporated in Chapter 6.0 of PSR of MO3&4. The above

requirement of Decree No. 50/2006 in force on the date of issue of the Decision No. 267/2008 in the current legislation is stated in Annex 3 part B (I) (H) par. 7 of Decree No. 430/2011,

- Condition 5 from annex to the Decision (Amend Chapter 7.4.20 PSR of MO3&4 so that compliance with the requirement of Annex 3 part B (II) (E) par. 2 (a) (2) of Decree No. 50/2006 in force on the date of issue of the Decision No. 267/2008 is fully demonstrated, and taking into account current best practice in this area – is incorporated in Chapters 7.2.3.2 and 7.4 of PSR of MO3&4. The above requirement of Decree No. 50/2006 in force on the date of issue of the Decision No. 267/2008 is identical with the requirement of Annex 3 part B (II) (E) par. 2 (a) (2) of Decree No. 430/2011,

- Condition 6 from annex to the Decision (Amend Chapter 14 of PSR of MO3&4 to include the requirements and state the method of their fulfilment in order to maintain subcriticality in RAW management in accordance with the requirement of Section 21 par.3 (a) of Act No. 541/2004 Coll. in force on the date of issue of the Decision No. 267/2008 – is incorporated in Chapter 14 of PSR of MO3&4. The above requirement of the Act No. 541/2004 Coll. in force on the date of issue of the Decision No. 267/2008 in the current legislation is identical with the requirement of Section 21 par. 4 (a) of the Atomic Act,

- Condition 7 from annex to the Decision (Amend Chapter 14 of PSR of MO3&4 to include requirements and indicate how they are fulfilled to provide for residual heat removal in RAW management in accordance with the requirement of Section 21 par. 3 (b) of Act No. 541/2004 Coll. in force on the date of issue of the Decision No. 267/2008 – is incorporated in Chapter 14 of PSR of MO3&4. The above requirement of Act No. 541/2004 Coll. in force on the date of issue of the Decision No. 267/2008 in the current legislation is identical with the requirement of Section 21 par. 4 (b) of the Atomic Act,

- Condition 8 from annex to the Decision (Amend Chapter 14.6 of PSR of MO3&4 to include requirement according to Section 21 par. 10 of Act No. 541/2004 in force on the date of issue of the Decision No. 267/2008) – is incorporated in Chapter 14 of PSR of MO3&4. The above requirement of Act No. 541/2004 in force on the date of issue of the Decision No. 267/2008 in the current legislation is stated in Section 21 par. 11 of the Atomic Act,

- Condition 9 from annex to the Decision (Amend Chapter 14.6 of PSR of MO3&4 to include requirement that RAW samples are stored until received at the repository in accordance with the requirement of Section 3 par. 3 of Decree No. 53/2006 in force on the date of issue of the Decision No. 267/2008 – is incorporated in Chapter 14 of PSR of MO3&4. The above requirement of Decree No. 53/2006 in force on the date of issue of the Decision No. 267/2008 in the current legislation is stated in Section 3 par. 3 of ÚJD SR Decree No. 30/2012, laying down the details of requirements for the management of nuclear materials, radioactive waste and spent nuclear fuel as amended by Decree No. 101/2016 (hereinafter only as the “Decree No. 30/2012”) stated as follows: “At the crucial points of radioactive waste management, the license holder, pursuant to Section 5 par. 3 (f) of Atomic Act, takes samples, analyses and stores representative samples for documenting and evaluating radioactive waste management. Samples shall be kept until the radioactive waste is received at the repository and samples from the waste characterization during operation of the repository shall be kept until the end of operation of the repository“,

- Condition 10 from annex to the Decision (Relevant parts of Chapter 9 of PSR of MO3&4 to be supplemented with requirements for coordination of records of also other nuclear materials, such as fresh nuclear fuel and SNF) – is incorporated in Chapter 9.5 PSR of MO3&4,

- Condition 11 from annex to the Decision (Align the classification of nuclear materials in Chapter 9.5.5 of PSR with the Commission Regulation (Euratom) 302/2005, and to add the possibility

to send nuclear materials from MBAs created in a nuclear installation of MO3&4) – is incorporated in Chapter 9.5 PSR of MO3&4,

- Condition 12 from annex to the Decision (In Chapter 11.05 of PSR of MO3&4, take into account radiation protection quality assurance program according to Annex 4 to Act No. 355/2007 Coll., as in force on the date of the Decision No. 267/2008 – is incorporated in Chapter 11.5 of PSR of MO3&4. Applicable Act No. 87/2018 Coll. includes an analogous requirement set out in part 2 of the Documentation for the application for authorisation,

- Condition 13 from annex to the Decision (Relevant parts of Chapter 11 of PSR of MO3&4 to be redrafted in a way to sufficiently utilize experience and knowledge from the operation of Units 1&2 of Mochovce NPP in the field of radiation protection) – incorporated in Chapter 11.5 of PSR of MO3&4,

- Condition 14 from annex to the Decision (In the section of Chapter 11 of PSR of MO3&4, describing sources of radiation, add gamma and neutrons overlaps and to describe possible measures to exclude or limit overlaps) – incorporated in Chapter 11.2 of PSR of MO3&4,

- Condition 15 from annex to the Decision (In the section of Chapter 11 of the Report, describing radiation sources, to supplement information on experience with the application of chemical regimes at Units 1&2 of Mochovce NPP in connection with radiation protection) – incorporated in Chapter 11.2 of PSR of MO3&4,

- Condition 16 from annex to the Decision (In the section of Chapter 11 PSR of MO3&4, to complement radiation protection objectives, such as dose limit for workers, regulatory levels for individual exposure and objectives in the field of collective dose) – incorporated in Chapter 11.5 of PSR of MO3&4,

- Condition 17 from annex to the Decision (In the section of Chapter 11 of PSR of MO3&4, to add an assessment on how the operation of Units 3&4 will affect individual doses of personnel, working on all four Units of this power plant) – incorporated in Chapter 11.5 of PSR of MO3&4,

- Condition 18 from annex to the Decision (In Chapter 11 of PSR of MO3&4, add a statement that the provision of radiation protection is a primary condition for the safe operation of a nuclear installation, and for this purpose the department providing radiation protection management should be independent of economic and operational indicators) – incorporated in Chapter 11.5 of PSR of MO3&4,

- Condition 19 from annex to the Decision (In Chapter 11 of PSR of MO3&4, complete, evaluate and emphasize the importance of the professional representative for radiation protection, his competencies, rights and obligations) – incorporated in Chapter 11.5 of PSR of MO3&4,

- Condition 20 from annex to the Decision (In Chapter 11 of PSR of MO3&4, reclassify work activities in the controlled zone into the relevant categories of risk rights in accordance with applicable legislation of the Slovak Republic) – incorporated in Chapter 11.5 of PSR of MO3&4,

- Condition 21 from annex to the Decision (In the relevant sections of PSR of MO3&4, to supplement the analysis of the possibility of errors and their consequences (FMEA) of all relevant systems, which will fully demonstrate the consequences of individual failures of elements on the operability of the system) – incorporated in Chapter 6.5.3 of PSR of MO3&4,

- Condition 22 from annex to the Decision (In the relevant sections of PSR of MO3&4 to supplement the analysis of internal flooding within the scope of the requirements of Chapter 2.5.4.3 of the approved requirements for the quality of nuclear installation of Units 3&4) – incorporated in Chapters 7.2.3.1 and 6.10 PSR of MO3&4,

- Condition 23 from annex to the Decision (In the relevant parts of Chapters of PSR of MO3&4, complement an analysis of events related to fires and flooding that are caused by seismic

event in accordance with the requirements of the IAEA guide GS-G-4.1, 3.68 b) – incorporated in Chapters 7.2.3.2 and 6.0 of PSR of MO3&4,

- Condition 24 from annex to the Decision (The process of commissioning of a nuclear installation, described in Chapter 8 of PSR of MO3&4, to be brought in line with the requirements of Annex 4, part B (II) (A) (1) of Decree No. 50/2006 as amended as of the date of issue of the Decision No. 267/2008 – Chapter 8 PSR of MO3&4, redrafted according to Annex 4 part B (II) (A) (1) of Decree No. 430/2011,

- Condition 25 from annex to the Decision (Recalculate LERF and CDF values stated in Chapter 7.5.1 of PSR MO3&4 for a shut-down reactor) – incorporated in Chapter No. 7.3 POSAR of MO3&4,

- Condition 26 from annex to the Decision (Edit the content of Chapter 5.1.1.3 of PSR of MO3&4 in such a way that it is fully compliant and demonstrates clear compliance with the requirements set out in Annex 3 part B (I) (C) (1) of Decree No. 50/2006, as amended as of the date of issue of the Decision No. 267/2008 – incorporated in Chapters 5.1 and 5.2 PSR of MO3&4. The above requirement of the Decree No. 50/2006 as amended as of the date of issue of the Decision No. 267/2008, is stated in Annex 3 part B (I) (C) (1) (c) of Decree No. 430/2011,

- Condition 27 from annex to the Decision (Add to the relevant parts of Chapters 5.2 and 7.4 of the Report, an information, to what limit values the boundary conditions of systems and components important in terms of nuclear safety, are designed in accordance with the requirement stated in Annex 3 part B (I) (I) (F) (1) Decree No. 50/2006 as amended as of the date of issue of the Decision No. 267/2008 – incorporated in Chapters 5.2 and 7.4 of PSR of MO3&4. The above requirement of Decree No. 50/2006 as amended as of the date of issue of the Decision No. 267/2008, is set out in Annex 3 part B (I) (F) (1) of Decree No. 430/2011,

- Condition 28 from annex to the Decision (Add to the relevant safety analysis for non-power operating modes and shut-down reactor, application of simple failure criterion in accordance with the requirement set out in Annex 3 part B (I) (H) (1) Decree No. 50/2006 as amended as of the date of issue of the Decision No. 267/2008 – incorporated in Chapter 7.4 of PSR of MO3&4. The above requirement of Decree No. 50/2006 as amended as of the date of issue of the Decision No. 267/2008, is stated in Annex 3 part B (I) (H) (1) of Decree No. 430/2011,

- Condition 29 from annex to the Decision (Add the relevant chapter of PSR of MO3&4 on possible non-fulfilment of the simple failure criterion together with the reasoning in accordance with the requirements stated in Annex 3 part B (I) (H) (4) of Decree No. 50/2006 as amended as of the date of issue of the Decision No. 267/2008 – incorporated in Chapter 7.4 of PSR of MO3&4. The above requirement of Decree No. 50/2006 as amended as of the date of issue of the Decision No. 267/2008, is stated in Annex 3 part B (I) (H) (4) of Decree No. 430/2011,

- Condition 30 from annex to the Decision (To relevant chapters of PSR of MO3&4, add an analysis of the risk of explosion or fire to determine the required fire resistance of fire-separation structures according to the requirement set out in Annex 3 part B (I) (I) (5) of ÚJD SR Decree No. 50/2006, as amended as of the date of issue of the Decision No. 267/2008 – incorporated in Chapters 7.2.3.1 and 7.2.3.2 of POSAR of MO3&4 in accordance with the requirements of Annex part B (I) (I) of Decree No. 430/2011.

- Condition 31 from annex to the Decision (To relevant parts of PSR of MO3&4, add an analysis of the combination of the effects of phenomena caused by natural conditions and human activity, in accordance with the requirement set out in Annex 3 part B (I) (J) par. 2 (b) No. 50/2006, as amended as of the date of issue of the Decision No. 267/2008 – incorporated in Chapter 7.2.3.2 of PSR of MO3&4. The cited requirement of Regulation No. 50/2006 Coll. as amended as of the date

of issuing the Decision No. 267/2008 can be found in the same place of the Annex No. 3 of the current Regulation, i.e. in the Annex No. 3 part B section I sub-section J paragraph 2 item b) of Regulation No. 430/2011 Coll.

- Condition 32 from annex to the Decision (Complete safety analyses to fully comply with the requirements set out in Annex 3 part B (II) (F) of Decree No. 50/2006, as amended as of the date of issue of the Decision No. 267/2008 – the requirement is incorporated in Chapter 7.2.3.1 PSR of MO3&4. The above requirement of Decree No. 50/2006 as amended as of the date of issue of the Decision No. 267/2008, is stated in Annex 3 part B (II) (G) of the Decree No. 430/2011.

13. By letter reg. No. 4594/2019 dated 25 June 2019, the first-instance administrative authority requested the Chairperson of ÚJD SR, as the appellate body pursuant to Section 58 par. 1 and Section 61 par. 2 of the Code of Administrative Procedure, and following Section 49 par. 2 of the Code of Administrative Procedure, for extension of the time limit for taking a decision in administrative proceedings Nos. 2.1 and 2.2 by 6 months. The first instance administrative authority justified its request by a large scope of control activities to be carried out after completion of the hot hydrotest at Unit 3, in particular by verifying full completion of all erection and installation work in the hermetic zone, by verifying the rectification of deficiencies and punch list items, as well as checking the readiness of the Unit for its re-heating, so that Section 46 of the Code of Administrative Procedure stating that a decision must be based on a reliably established state of affairs, is fully complied with. The Chairperson of ÚJD SR complied with the request of the first instance administrative authority and extended the time limit for the decision by 6 months. The parties and other authorities concerned were informed of the extension of the time limit for the decision by letters of ÚJD SR reg. No. 4683/2019 and 4681/2019 of 28 June 2019.

14. Slovenské elektrárne, a.s., gradually notified the ÚJD SR of the readiness of individual buildings of Unit 3, or common buildings for pre Units 3&4, which are necessary for operation of Unit 3, to continue the proceedings on the application of Slovenské elektrárne, a. s. for the issue of permit for early use of the building. ÚJD SR, using graded approach, properly evaluated the importance of these buildings for nuclear safety. Only after confirmation of the readiness of the decisive buildings to hold public hearings related to visual inspections (local surveys), in particular the main generation block, the auxiliary building and diesel generator station, it considered that the conditions for the continuation of administrative proceedings No. 2.3 were fulfilled, ÚJD SR notified the parties by letters reg. No. 6122/2019, 6124/2019 and 6125/2019 of 23 August 2019, of the continuation of the administrative proceedings No. 2.3 from 19 August 2019. Information on the continuation of the proceedings was published on the Central Official Electronic Notice Board of the Central Public Administration Portal [www.slovensko.sk](http://www.slovensko.sk) (hereinafter only as „COENB“), in the form of a public decree at the municipal offices of Kalná nad Hronom and Nový Tekov, and the ÚJD SR website.

ÚJD SR, taking into account the requests of the representatives of the public authorities concerned (in particular the Fire and Rescue Services of SR and the Labour Inspectorate), and in accordance with the proposals of Slovenské elektrárne, a. s., organized hearings related to visual inspections (local surveys) by individual buildings partially, so that the representatives of these state authorities have optimal conditions for carrying out the assessment of the situation in the areas that are within their competence.



15. Public hearings associated with visual inspections (local surveys) were held due to the large number of individual buildings and their extent, step-by-step for individual buildings (groups of buildings) or floors thereof, within the deadlines set by ÚJD SR. Notices on the dates of hearings related to visual inspections (local surveys) were also published on the official notice board and on the website of the municipality of Kalná nad Hronom, on the electronic notice board and website of ÚJD SR, and on the COENB.

- The proposal for the early use of individual buildings /floors has been examined onsite. The builder submitted the following documents for individual hearings associated with visual inspections (local surveys):

- A copy of the Final Building Permit,
- The Design Documentation certified by the building authority in the building procedure,
- Modifications to the Basic Design that are related to the relevant building,
- Accompanying technical documentation and construction site logbooks.

The current status of individual buildings is in accordance with the documentation required by the conditions of the ÚJD SR Decision No. 246/2008 of 14 August 2008 on the permit of modification of the building before completion, which was confirmed by ÚJD SR Decision No. 291/2014 of 23 May 2014. The issue of ÚJD SR Decision No. 291/2014 was preceded by an appeal procedure, in which ÚJD SR Decision No. 79/2009 was issued. The ÚJD SR Decision No. 79/2009 was challenged by an action before the Regional Court Bratislava. Following an appeal against the decision of the Regional Court Bratislava, the Supreme Court of the Slovak Republic issued a ruling, referring the case to the ÚJD SR for a new proceeding. As a result of the new procedure, a new second-instance ÚJD SR Decision No. 291/2014 was issued, which confirmed Decision No. 246/2008.

Technological equipment in individual buildings has been tested/testing according to the prescribed programs and their readiness for commissioning has been evidenced in the rest reports in accordance with the state of their tests. Inspections for individual civil structures were performed as follows:

No.	Name of object/civil structure	Date	Object Status
1.	Drinking water supply main Fire water supply main Drainage of in-plant siding	6 Feb. 2019	Complies for early use
2.	Side gate and fencing	08. 01. 2019	Complies for early use
3.	Sewage system Fire and service water main Heating network Foundations of piping bridge	02. 04. 2019	Complies for early use
4.	Rainwater drainage Pumping of diesel and oil II. HVB	17. 04. 2019	Complies for early use
5.	Power cables, Industrial sewerage Cooling water pipes in the tower circuit, Cooling water ducts in the circuit of the towers	30. 04. 2019	Complies for early use

No.	Name of object/civil structure	Date	Object Status
6.	Reactor building II. HVB +22.20 m, +29.10 m, +32.93 m, 34.20 m	25. 06. 2019	Complies for early use
7.	Oil management DGS Active auxiliary building +18.60 m, +25.20 m	27. 06. 2019	Complies for early use
8.	Forced cooling towers II-1, II-2, II-3	09. 07. 2019	Complies for early use
9.	Mobile DG cover, Unit 4	04. 07. 2019	Complies for early use
10.	SHN Unit 3	04. 07. 2019	Complies for early use
11.	Diesel management II.HVB	04. 07. 2019	Complies for early use
12.	110 kV and 400 kV switch yard	04. 07. 2019	Complies for early use
13.	Pumping station ESW II. HVB	09. 07. 2019	Complies for early use
14.	Central pumping station, non-essential service water and non-system fire water II. HVB	25. 07. 2019	Complies for early use
15.	High pressure compressor station II. HVB	25. 07. 2019	Complies for early use
16.	DGS II. HVB	25. 07. 2019	Complies for early use
17.	Air duct to venting stack	30. 07. 2019	Complies for early use
18.	Connecting bridge between I.HVB and II. HVB	30. 07. 2019	Complies for early use
19.	Draft cooling tower 41	30. 07. 2019	Complies for early use
20.	Draft cooling tower 32	30. 07. 2019	Complies for early use
21.	Trenches and power cable ducts – Part 2	27. 08. 2019	Complies for early use
22.	Bridge between II.HVB and SO 801/1-02	27. 08. 2019	Complies for early use
23.	Venting stack	27. 08. 2019	Complies for early use
24.	Back-up water source – 2.HVB	27. 08. 2019	Complies for early use
25.	Common diesel generator station II. HVB	03. 09. 2019	Complies for early use
26.	Active auxiliary building -0.90 m, +5.10 m	05. 09. 2019	Complies for early use
27.	Reactor building II. HVB floors -10.50 m and -6.50 m	10. 09. 2019	Complies for early use
28.	Reactor building II. HVB floors ±0.00 m, +3.00 m	12. 09. 2019	Complies for early use
29.	Reactor building II. HVB floor +6.00 m	17. 09. 2019	Complies for early use
30.	Reactor building II. HVB floor +10.500 m	19. 09. 2019	Complies for early use
31.	Reactor building II. HVB floor -2.80 m	26. 09. 2019	Complies for early use
32.	Base of transformer with oil tanks II. HVB	26. 09. 2019	Complies for early use
33.	Base of the cross rail for transformers II. HVB	26. 09. 2019	Complies for early use
34.	Premises of the electrical equipment along the Unit 3 and 4 floor +0,00 m	08. 10. 2019	Complies for early use
35.	Premises of electrical equipment transverse Unit 3, floors +0,00 m a +5,40 m	08. 10. 2019	Complies for early use
36.	Premises of the electrical equipment along the Units 3&4, floors -6.40 m and -5.70 m	08. 10. 2019	Complies for early use

No.	Name of object/civil structure	Date	Object Status
37.	Industrial sewerage	30. 04. 2019	As in point 5
38.	Pipe-laying ducts – Part 2	10. 2019	Complies for early use
39.	Reactor building II. HVB to the extent of floor +14.10 m	10. 10. 2019	Complies for early use
40.	Reactor building II. HVB to the extent of floor +18.90 m	10. 10. 2019	Complies for early use
41.	Building of active auxiliary operations +10.80 m	15. 10. 2019	Complies for early use
42.	Premises of the electrical equipment along the Units 3&4, floor +5.40 m	17. 10. 2019	Complies for early use
43.	Premises of the electrical equipment along the Units 3&4, floor -8.40 m, -7.95 m	17. 10. 2019	Complies for early use
44.	Premises of the electrical equipment transverse Unit 3 (-7.00 m)	22. 10. 2019	Complies for early use
45.	Premises of the electrical equipment along the Units 3&4 (-3.60 m)	22. 10. 2019	Complies for early use
46.	Premises of the electrical equipment transverse Unit 3 (-3.60 m)	22. 10. 2019	Complies for early use
47.	Premises of the electrical equipment along the Units 3&4, floor +9.60 m	24. 10. 2019	Complies for early use
48.	Premises of the electrical equipment along the Units 3&4, floor +18.60 m	24. 10. 2019	Complies for early use
49.	Premises of the electrical equipment along the Units 3&4, floor +39.50 m	29. 10. 2019	Complies for early use
50.	Premises of the electrical equipment along the Units 3&4, floor +14.70 m	29. 10. 2019	Complies for early use
51.	Turbine hall II. HVB floor +3.80 m	05. 11. 2019	Complies for early use
52.	Turbine hall II. HVB floor +4.70 m	05. 11. 2019	Complies for early use
53.	Turbine hall II. HVB floor +6.70 m	07. 11. 2019	Complies for early use
54.	Turbine hall II. HVB floor +7.50 m	07. 11. 2019	Complies for early use
55.	Premises of the electrical equipment along the Units 3&4, floor +22.50 m	12. 11. 2019	Complies for early use
56.	Premises of the electrical equipment along the Units 3&4, floor +26.75 m	12. 11. 2019	Complies for early use
57.	Premises of the electrical equipment along the Units 3&4, floor +31.00 m	14. 11. 2019	Complies for early use
58.	Premises of the electrical equipment along the Units 3&4, floor +35.50 m	14. 11. 2019	Complies for early use
59.	Premises of el. equipment, transverse, Unit 3, floor: +9.60 m	19. 11. 2019	Complies for early use

No.	Name of object/civil structure	Date	Object Status
60.	Premises of el. equipment, transverse, Unit 3, floor: +14.70 m	19. 11. 2019	Complies for early use
61.	Premises of el. equipment, transverse, Unit 3, floor: +20.00 m	19. 11. 2019	Complies for early use
62.	Turbine hall II.HVB floor: -3.10 m	21. 11. 2019	Complies for early use
63.	Turbine hall II.HVB Floor : -5.50 m	21.11.2019	Complies for early use
64.	Turbine hall II.HVB floor: +0.00 m	21. 11. 2019	Complies for early use
65.	Decarbonization of chemical water treatment plant	22. 11. 2019	Complies for early use
66.	Piezometers – Part 2	22. 11. 2019	Complies for early use
67.	Internal roads -Part 2	22. 11. 2019	Complies for early use
68.	Pipe laying to +-0.00 – Part 2	22. 11. 2019	Complies for early use
69.	Cooling water pipes in the tower circuit II.HVB	22. 11. 2019	Complies for early use
70.	Draft cooling tower 31	22. 11. 2019	Complies for early use
71.	Turbine hall II.HVB floor +9.60 m	26. 11. 2019	Complies for early use
72.	Turbine hall II.HVB floor +13.80 m	26. 11. 2019	Complies for early use
73.	Turbine hall II.HVB floor +32.50 m	26. 11. 2019	Complies for early use
74.	Main grounding network – Part 2	28. 11. 2019	Complies for early use
75.	Tranches and power cable ducts – Part 1	28. 11. 2019	Complies for early use
76.	Exterior lighting – Part 2	28. 11. 2019	Complies for early use
77.	Cable channels of main cooling towers of II HVB	28. 11. 2019	Complies for early use

17. On 27 November 2019, an oral hearing was held in connection with the local survey of buildings of Unit 3, and within the scope of buildings and facilities common to Units 3&4, which are necessary for the operation of Unit 3 in connection with the application for permission for early use of the Mochovce Nuclear Power Plant, WVER 4x440 MW, Project 3. The ÚJD SR notified the parties in writing about the date of the oral hearing connected with local survey – by letters reg. No. 7860/2019, 7864/2019 and 7865/2019 dated 30 October 2019. ÚJD SR published the details of the organization of the local survey in question at its website. The procedural act was attended by the parties, including representatives of Slovenské elektrárne, a. s., GLOBAL2000 (Austria) NGO

(hereinafter only as “GLOBAL2000”), and representatives of local self-government, as well as representatives of the authorities concerned, and ÚJD SR. Engineering and commissioning units of Slovenské elektrárne, a. s. presented the buildings and equipment to those present, which were subsequently the subject of visual inspection following after the oral hearing. During the oral hearing connected with local survey, those present asked questions and made comments, which were answered by the relevant representatives of Slovenské elektrárne, a. s. and of ÚJD SR. The persons present were also given the opportunity to consult the relevant documentation. Minutes and Protocol from the oral hearing and the visual inspection of buildings and equipment within the local survey were drafted, the content of which was agreed between the parties, authorities concerned and others present. The Minutes and the Protocol are published on the ÚJD SR website.

18. In carrying out the construction, the general technical requirements for construction were respected. The project is implemented according to the design documentation verified in the building procedure for the modification of the building before completion for Mochovce Nuclear Power Plant WWER 4x440 MW, Project 3, in which ÚJD SR Decision No. 246/2008 of 14 August 2008 was issued and confirmed by the second instance ÚJD SR Decision No. 291/2014 of 23 May 2014. It can be concluded that the early use of the building will not endanger the life and health of persons, nor the interests of society and the environment, therefore ÚJD SR decided as stated in the operative part of this Decision.

19. Compliance with the binding conditions of ÚJD SR Decision No. 246/2008, confirmed by ÚJD SR Decision No. 291/2014 (permit for modification of the project “Mochovce Nuclear Power Plant VWWR 4x440 MW Project 3“ before completion) was part of the documentation for individual oral hearings connected with visual inspections (local surveys). A summary evaluation of the fulfilment of the binding conditions of ÚJD SR Decision No. 246/2008, confirmed by Decision No. 291/2014 was submitted by Slovenské elektrárne, a. s. to ÚJD SR as part of the submission of 12 December 2016, and updated it by letter ref. SE/2019/063998 dated 20 November 2019, which was registered by ÚJD SR as reg. No. 8584/2019.

20. Slovenské elektrárne, a.s., submitted a letter ref. SE/2019/050765 dated 18 September 2019, to ÚJD SR, which was registered by ÚJD SR under reg. No. 6722/2019 “Final Opinion on the assessment of compliance between DD (Detail Design) and the concept of BD (Basic Design)“. Designer’s supervision (ÚJV Řež, a.s., Energoprojekt Praha) in this document notes the compliance of the Detail Design with the Basic Design and its amendments. In individual cases the designer’s supervision requires adjustments to be made in the areas of nuclear, machinery, electrical and I&C, in order to achieve full compliance between the Detail Design and the Basic Design. These adjustments are most often of a formal nature (modification of the documentation required to be aligned with other changes in legislation).

21. On the basis of the opinion of designer’s supervision, ÚJD SR asked Slovenské elektrárne, a. s. to update the document “Final opinion on the assessment of compliance between DD (Detail Design) and the concept of BD (Basic Design)“. Slovenské elektrárne, a. s. by letter re. SE/2020/017471 of 26 March 2020 submitted to ÚJD SR a revised document, “Final opinion on the assessment of compliance between DD (Detail Design) and the concept of BD (Basic Design), rev. 02., in which the author of the Basic Design notes that after the modifications made to the

documentation, the technical documentation of the Detail Design is in line with the concept of the Basic Design.

22. By Decision No. OOZPŽ/4603/2019 of 15 October 2019, UVZ SR issued a permit for the release of radioactive substances resulting from the operation of Units 1, 2 and 3 of Mochovce from administrative control by their discharge into the environment. The Decision defines the basic authorized limits for limiting the exposure of residents around the nuclear installation caused by radioactive substances released from administrative control and discharged into the air, and surface waters, in the operation of Units 1, 2 and 3 of Mochovce, a designated computing program for model evaluation of exposure of residents caused by discharges of radioactive substances released into the environment during normal operation of Units 1, 2 and 3 of Mochovce, reference levels of radionuclides discharges into the air per calendar year, reference levels of radionuclides discharges in waste water into surface waters of the Hron river per calendar year, requirements for monitoring the activity of radionuclides discharged into the air, the activity of radionuclides discharged in wastewater into the surface water of the Hron river, and other important rules for the release of radioactive substances resulting from the operation of Units 1, 2 and 3 of Mochovce from administrative control by discharging them into the environment.

23. By letter reg. No. 8862/2019 dated 9 December 2019, the first instance administrative authority requested the Chairperson of ÚJD SR, as the appellate body in compliance with Section 58 par. 1 and Section 61 par. 2 of the Code of Administrative Procedure, in connection with Section 49 par. 2 of the Code of Administrative Procedure, to extend the period for the decision in administrative proceedings Nos. 2.1 and 2.2 by 6 months. The first-instance administrative authority justified its request by the need to perform additional control activities during the reheating of Unit 3, and also to give the parties sufficient time for commenting the supporting documentation used for the decision in accordance with Section 33 par. 2 of the Code of Administrative Procedure. The Chairperson of ÚJD SR complied with the request of the first-instance administrative authority and extended the period for the decision by 6 months. The parties and other authorities concerned were informed about the extended period by letters of ÚJD SR reg. Nos. 9187/2019, 9198/2019 and 9190/2019 dated 19 December 2019.

24. By letter reg. No. 161/2020 of 9 January 2020, ÚJD SR submitted to MoEnv SR an update on fulfilment of the Final Opinion on EIA of MO3&4. This update on the fulfilment of the conditions of the Final Opinion on EIA of MO3&4 was drafted by Slovenské elektrárne, a. s. and was sent to ÚJD SR by letter ref. SE/2019/069972 dated 18 December 2019. ÚJD SR inspectors checked the data in the update during their inspection in Mochovce. The update was requested by ÚJD SR following the issue of ÚVZ SR Decision No. OOZPŽ/4603/2019 of 15 October 2019. At the same time as submitting an update on fulfilment of conditions from the Final Opinion on EIA of MO3&4, ÚJD SR requested the MoEnv SR by letter reg. No. 161/2020 to issue a Binding Opinion on the fulfilment of recommended conditions from the Final Opinion on EIA of MO3&4 pursuant to Section 38 par. 4 of Act No. 24/2006.

25. As part of the procedure and after reviewing the assessment of the fulfilment of conditions set out in the Final Opinion on EIA of MO3&4 issued pursuant to the Impact Assessment Act, MoEnv issued its Binding Opinion No. 1360/2020/zg (hereinafter only as the "Binding Opinion of MoEnv SR") of 11 February 2020, which was delivered to ÚJD SR on 12 February 2020, and registered as

reg. No. 1166/2020 in file No. 781-2020. In the Binding Opinion, the MoEnv SR states that: "...petition for the procedure in the matter of issuing permit for an early use of the project Mochovce Nuclear Power Plant of WWER 4x440 MW Project 3, and permit for early use of individual buildings of Unit 3 and common buildings for Units 3&4, which are necessary for the operation of Unit 3, is conceptually in line with the Impact Assessment Act, with the Final Opinion of MoEnv SR No. 395/2010-3.4/hp of 28 April 2010 and its conditions". The Binding Opinion of MoEnv SR contains the following conditions:

- 1) Environmental Impacts Assessment pursuant to Section 17 of ÚJD SR Decree No. 33/2012 on the periodical, comprehensive and systematic nuclear safety assessment of nuclear installation as amended (hereinafter only as "Decree No. 33/2012").
- 2) The overhead power lines shall have a technical solution, which prevents the killing of birds.

ÚJD SR reflected the condition No. 2) from the Binding Opinion of MoEnv SR into the Condition C.2 of the draft decision, which was published for the parties and the public on the ÚJD SR website on 15 February 2020. By publishing the supporting documentation for the decision in the administrative proceedings Nos. 2.1, 2.2 and 2.3, ÚJD SR implemented Section 33 par. 2 of the Code of Administrative Procedure, where the parties are given the opportunity to comment on its supporting documentation and on the way it was determined, or to propose supplements before the decision is issued. Details on publishing all the documents can be found in items 28 and 29. Also, by publishing the draft decision, ÚJD SR made it possible to exercise the right of the public, in particular under Art. 6 par. 2 of the Convention on Access to Information, Public Participation in Decision-Making, and Access to Justice in Environmental Matters (published in the Collection of Laws by the Notice of the Ministry of Foreign Affairs of the Slovak Republic on the adoption of the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters No. 43/2006) (hereinafter referred to as the "Aarhus Convention") as an international treaty, by which the Slovak Republic is bound.

Slovenské elektrárne, a.s., has taken measures to fulfil Condition No. 2) of the Binding Opinion of MoEnv SR in a timely manner. By letter ref. SE/2020/027411 dated 25 May 2020, ÚJD SR informed about implemented measure to ensure that the overhead power lines are designed in a way that prevents the killing of birds. By letter reg. No. 3839/2020 dated 9 June 2020, ÚJD SR requested MoEnv to comment on the measures implemented on the overhead power lines at MO3&4. The MoEnv SR, by letter ref. 1360/2020zg dated 25 June 2020, informed ÚJD SR, that based on measures implemented it considers the condition set out in the Final Opinion on EIA of MO3&4 to be fulfilled. In view of the above, Condition No. 2 of the Binding Opinion of MoEnv SR is not found in this Decision.

Fulfilment of Condition No. 1) from the Binding Opinion of the MoEnv SR can only be verified after Unit 3 has been put into operation/trial run. For this reason, the ÚJD SR will incorporate the wording of this condition into the envisaged future decision on the issue of approval of the trial run of Unit 3. The favourable opinion of the MoEnv SR on such a procedure of ÚJD SR is stated in the written communication contained in file No. 781-2020 under reg. No. 1271/2020.

26. ÚJD SR verified the performance of the tasks from the Action Plan following the Stress Tests after the Fukushima accident in the form of inspection No. 412/2020, which took place from August to December 2020. With this inspection, ÚJD SR checked on site the data contained in the submitted

list of fulfilled tasks from the Action Plan. Slovenské elektrárne, a. s. submitted this list to ÚJD SR by letter No 31 October 2019, which was registered by ÚJD SR under No. 7977/2019. ÚJD SR confirmed after the inspection that measures from the Action Plan following the Stress Tests are fulfilled, or will be fulfilled within the set deadlines. In 2020, during inspection in Mochovce, ÚJD SR requested an update to the fulfilment of tasks from the Action Plan. Slovenské elektrárne, a. s. submitted this update on the Action Plan as part of the documentation for the inspection. ÚJD SR verified by inspection fulfilment of tasks from the Action Plan, based on which it notes that the annual tasks of the Action Plan are fully implemented.

27. The documentation for the decision in administrative proceedings Nos. 2.1 and 2.2 was published on the ÚJD SR website. The parties and other authorities concerned were informed about publishing of the documentation for the decision in administrative proceedings Nos. 2.1 and 2.2 in writing, by letters reg. No. 5918/2018, 5913/2018 and 5921/2018 dated 17 July 2018 and letters reg. No. 6048/2018 of 26 September 2018. None of the parties commented on the documentation forming the basis for the decision within the set deadline (by 28 October 2018).

28. By letter reg. No. 1024/2020 dated 10 February 2020, ÚJD SR announced the provisional date of publication of the documentation on the draft decision in administrative proceedings for “Mochovce Nuclear Power Plant of WWER 4x440 MW Project 3“ by means of a public decree, by publishing information on the ÚJD SR website in Slovak version: <https://www.ujd.gov.sk/wp-content/uploads/2021/09/Oznamenie-o-zverejneni-podkladov-pre-rozhodnutie-3.-blok.pdf>, in English version: [https://www.ujd.gov.sk/wp-content/uploads/2022/01/Notification-on-publication-of-basis-for-the-decision-Unit-3-L\\_1026\\_2020.pdf](https://www.ujd.gov.sk/wp-content/uploads/2022/01/Notification-on-publication-of-basis-for-the-decision-Unit-3-L_1026_2020.pdf), as well as by delivery of a letter by registered mail to interested parties in the territory of the Slovak Republic by letter dated 10 February 2020 under reg. No. 1024/2020. Interested parties having their registered office abroad, the announcement on the publication of the supporting documentation for the decision in the administrative proceedings was delivered by letter dated 10 February 2020 under reg. No. 1026/2020 in English.

29. Documentation for a decision in administrative proceedings Nos. 2.1, 2.2 and 2.3 were published on the ÚJD SR website and on the COENB on 15 February 2020 as supporting documentation, the publication of which in the administrative proceedings in question implements Section 33 par. 2 of the Code of Administrative Procedure, in which the parties were given opportunity to comment on the basis and the method how it was established before the decision is taken, or to propose any supplements. Also, this draft resolution and its publication made it possible to implement the right of the public, in particular pursuant to Article 6 par. 2 and 3 of Aarhus Convention. The parties were informed about publication of the supporting documentation for the decision in the administrative proceedings Nos. 2.1, 2.2 and 2.3 by letters reg. No. 1027/2020, 1026/2020 and 1024/2020 dated 10 February 2020.

30. At the same time, ÚJD SR by letters reg. No. 1027/2020, 1026/2020 and 1024/2020 dated 10 February 2020 pointed out to the parties that pursuant to Section 8 par. 10 of the Atomic Act as amended by its last amendment published in the Collection of Laws of the Slovak Republic under No. 279/2019 Coll. in force from 1 October 2019, it will serve all documents, including the decision to issue approval or permit, a call, notification, summons or other document by public decree. ÚJD SR also informed the entities involved that the public decree will be published on the COENB, on the ÚJD SR website and at the municipal offices in the municipalities of Kalná nad Hronom and Nový Tekov.



31. The documents included the draft decision issuing a permit pursuant to Section 5 par. 3 (b), Section 5 par. 3 (f) of the Atomic Act, Section 121 par. 2 (e) and Section 83 of the Building Act, with appropriate explanations for the parties, chapter 13 of PSR of MO3&4 (Environmental Impact) and the account of fulfilled conditions from the Final Opinion on EIA of MO3&4.

32. By letter reg. No. 3711/2020 dated 2 June 2020 the first-instance administrative authority asked the Chairperson of ÚJD SR as the appellate administrative authority in accordance with Section 58 par. 1 and Section 61 par. 2 of the Code of Administrative Procedure, in connection with Section 49 par. 2 of the Code of Administrative Procedure, to extend the period for decision in administrative proceedings Nos. 2.1, 2.2 and 2.3 by 6 months. The first-instance administrative authority justified its request by the following:

- In connection with the threat to public health by COVID – 19, there was a significant slowdown in the pace of completion of Unit 3 between March and May 2020. This has substantially affected some activities, which need to be completed before a decision is issued in administrative proceedings Nos. 2.1, 2.2 and 2.3.

- Unit 3 is undergoing an extensive quality control of metallurgical materials, which was triggered by the detection of non-conforming material that was installed on Unit 4. This check must be completed before a decision is issued on the case. At the same time, given the scope, it is reasonable to expect that the completion of this inspection will exceed the time limit for the issuance of decision in administrative proceedings Nos. 2.1, 2.2 and 2.3.

33. The ÚJD SR Chairperson complied with the request of the first-instance administrative authority and extended the period for decision by 6 months. The parties and other authorities concerned were informed about the extension of the period for decision by a public decree that is published on the COENB, on the ÚJD SR website and at the municipal offices of municipalities Kalná nad Hronom and Nový Tekov (letter reg. No. 3913/2020) and on the ÚJD SR website on 15 June 2020.

34. In compliance with Section 33(2) of the Administrative Procedure Code, ÚJD SR asked the parties to the proceedings and other relevant bodies to comment the published documents for the decision in writing no later than by 15 April 2020. The deadline provided is two months. Within the time limit set by the administrative authority, the following four entities delivered their position on the draft decision and its basis:

- a) MBL spol. s r.o., with its registered office at Tábořská 93, 615 00 Brno, Czech Republic, BIC: 26 312 956, incorporated in the Commercial Register of the Regional Court Brno, reg. No.: C43278 (hereinafter only as “MBL”), on 6 April 2020 delivered to the electronic mailbox of the ÚJD SR a statement on the basis for the draft decision, which was registered under reg. No. 2436/2020. The statement delivered by MBL complied with the formal requirements for the submission in accordance with Section 19 par. 1 of the Code of Administrative Procedure.

- b) On 15 April 2020, the Office of the Regional Government of Lower Austria delivered a statement to ÚJD SR on the draft decision and its basis in a form of e-mail, which was registered under reg. No. 2607/2020. From a procedural point of view the submission did not comply with the formal requirements under Section 19 par. 1 of the Code of Administrative Procedure.

c) GLOBAL2000 delivered its opinion on the draft decision and its basis on 15 April 2020 by e-mail and ÚJD SR registered it under No. 2608/2020. From a procedural point of view, the submission did not comply with the formal requirements under Section 19 par. 1 of the Code of Administrative Procedure.

d) Slovenské elektrárne, a.s., delivered its written position on the draft decision and its basis by letter No. SE/2020/019979 dated 8 April 2020, registered by ÚJD SR under reg. No. 2557/2020. From the procedural point of view, the submission has met formal requirements according to Section 19(1) of the Code of Administrative Procedure.

Both substantive and formal or procedural comments were raised in the statements received.

35. In order to reliably establish the state of affairs, ÚJD SR dealt with the individual statements as follows:

The statement made by the Regional Government of Lower Austria:

a) Reactors that are currently being put into operation worldwide, belong to the 3<sup>rd</sup> generation reactors. The Soviet type of WWER 440/213 reactor from the 1960s and 1970s belongs to the Generation 2. Despite of numerous improvements made to the original design, upgrades and ambitious declarations on “evolutionary concept“, Units 3&4 with WWER 440/213 reactors by no means reach the safety standard of the new, Generation 3 installations.

b) Reactors that are currently being put into operation worldwide, belong to the Generation 3 reactors. The Soviet type of WWER 440/213 reactor from the 1960s and 1970s belongs to the Generation 2. Despite of numerous improvements made to the original design, upgrades and ambitious declarations on “evolutionary concept“, Units 3&4 with WWER 440/213 reactors by no means reach the safety standard of the new, Generation 3 installations.

c) An obsolete reactor type, the safety level falls short of the latest standard. It provides the following arguments:

1) The reactors are not equipped with a containment, but only a confinement with a pressure suppression system,

2) (WWER Units) are dual-units with a common reactor hall and common turbine hall for all four reactors,

3) (WWER 440/213 reactor) is not equipped for severe accidents beyond the designbasis accidents,

4) The resistance against impact of an aircraft has not been proven,

5) Closure of any molten core in the reactor pressure vessel has not been demonstrated either in all sub-areas or in its entirety, let alone under severe accident conditions.

d) Aging of building parts and decades-long construction history of the installation:

1) Contractors and construction companies have already carried out maintenance and preservation, but these measures have only been implemented since 2000 under the supervision of the Nuclear Regulatory Authority,

2) The question arises whether safety-relevant parts of equipment and machinery (e.g. emergency power supply diesel unit), for which relevant aging can already be recorded, have undergone extensive testing and documentation of their flawless functioning and whether adequate transparent ageing management system has been put in place to the extent and quality that is necessary,

3) According to the IAEA Pre-OSART Mission (Operational Safety Review Team), the quality of construction organization, construction supervision, documentation acceptance, staff training and deficiency management remains unclear for the public and therefore still needs to be critically assessed.

e) Electrical power – potential electrical gross power of 471 MW is stated per Unit, which is higher than the originally planned power of 440 MW. The question arises, whether the original safety margins for possible higher electric power have been exhausted.

f) The environmental impacts assessment refers in detail to interim storage facility, while the terminal storage facility continues to refer to the national development program for the geological repository. It also mentions the possibility of exporting spent nuclear fuel abroad. One way or another, the issue of repository will not be solved even before the scheduled commissioning of Unit 3, and any considerations of the relevant part of the environmental impacts are being moved to the future.

36. ÚJD SR's position on the statements made by the Regional Government of Lower Austria:

The statement by the Office of the Lower Austrian Regional Government that was delivered by electronic means in a form of E-mail did not satisfy the requirements of a filing pursuant to Section 19 par. 1 of the Code of Administrative Procedure. According to this provision, any filing made in electronic form without authorization under a special regulation on electronic form of the exercise of public authority, must be completed within three business days also in paper form, in electronic form it must be authorized under a special regulation or orally in Minutes. The statement by the Office of Lower Austrian Regional Government was a resubmission of a statement from 2009 in German language with a minor update, however, not containing any specific reservations, suggestions, comments on the draft decision and to its supporting documentation.

In their response dated 16 April 2020 reg. No. 262/2020 to the statement (i.e., the e-mail), ÚJD SR instructed the Office of the Regional Government of Lower Austria on the absence of prescribed filing requirements, and in accordance with Section 19(3) of the Code of Administrative Procedure, asked the party to the proceedings to remove deficiencies of the filing by the prescribed deadline, i.e., to serve its filing according to the legal requirements relating to electronic filing under a special regulation within 3 business days.

Following a request from ÚJD SR, the Office of the Regional Government of Lower Austria on 18 April 2020, despite the instruction, again delivered the statement electronically by E-mail. The submission again did not comply with the statutory requirements for filing laid down in Section 19 par. 3 of the Code of Administrative Procedure, since it was not supplemented in paper form within three business days nor authorized pursuant to special regulation on electronic form of exercise of official authority, nor confirmed orally into Minutes according to Section 19 par. 1 of the Code of Administrative Procedure. In the re-sent electronic submission, the statement compared to the original submission was only updated with the date and a change in the person of the responsible representative representing the Office of the Regional Government of Lower Austria.

ÚJD SR had the statement of the Office of the Regional Government of Lower Austria translated, and reviewed the submission in accordance with Section 19 par. 2 of the Code of Administrative Procedure as to its contents, despite the failure to follow the correct procedure for

making electronic submissions by the party, to which the administrative authority pointed out for the party by call and instruction on the need to supplement such submission by e-mail of 16 April 2020.

In its statement, the Office of the Regional Government of Lower Austria expressed a general negative attitude towards the expansion in use of nuclear energy as such, which would be the commissioning of Unit 3 in that regard. The various points of the statement focused on the technical condition of the facilities and components of Unit 3.

Ad a) As for the statement made by the Regional Government of Lower Austria, ÚJD SR as an administrative authority states that the original design of the reactor WWER 440/2013 does not indeed belong to nuclear reactors of generation 3. A number of safety improvements have been made to reactors of Units 3&4, which significantly increase their safety. Reactors of Units 3&4 fully comply with the applicable Slovak legislation, which incorporated the IAEA requirements and reference levels of the Western European Nuclear Regulators Association (hereinafter referred to as "WENRA").

Ad b) As for the above statements made by the Regional Government of Lower Austria, the ÚJD SR as an administrative authority states that it does not agree with the unfounded statement that sufficient consequences have not been drawn from the Stress Tests following the Fukushima accident. In the Slovak Republic, the Stress Tests were carried out in full compliance with ENSREG requirements and their results were fully accepted by the international forum. All information on the course and results of the Stress Tests are available to the parties and the public on the website of ÚJD SR, including the schedule and the progress of Stress Tests, reports from Stress Tests and Action Plan of measures resulting from the Stress Tests. This information is available both in Slovak and English versions. Due to objectivity, it should be added that measures to manage severe accidents associated with core melting were partially implemented in nuclear installations of the Slovak Republic already before the accident at Fukushima power plant, as a result of periodical comprehensive safety assessment. The Stress Tests Reports indicate each of the cases referred to in the statement made by the Regional Government of Lower Austria, its assessment is made and if needed – appropriate corrective actions are established and implemented.

As for the statements made by the Regional Government of Lower Austria, contained under par. c.1) to c.5), ÚJD SR as an administrative authority states the following:

Ad c.1) The reactor, the primary circuit and part of the secondary circuit of Units 3&4 are located in a full-scale reinforced containment. The rooms surrounding containment, as well as rooms with systems connected to the primary circuit, including shut-off valves, are designed as an airtight combined zone. This airtight zone (with a pressure lower than atmospheric pressure), which partially surrounds the containment in potentially the most exposed locations, forms an additional barrier to prevent leakage of radioactive materials into the environment, thus performing the function of secondary containment. The containment integrity is ensured even in the event of severe accidents. The containment walls are covered with steel lining. The results of the containment tests carried out so far confirm its high tightness and strength. Confirmation of the containment qualification and its full functionality was carried out experimentally and computationally by international projects (e.g., Phare Projects; ÚJD SR participated on some of them too).

Ad c.2) The two WWER 440 Units share a common reactor hall and turbine hall. Safety documentation and documentation from the Stress Tests after the Fukushima accident analyse the impacts of possible external and internal hazards (earthquake, strong wind, snow, flooding, fire, fast-

flying debris from rotating equipment and others), demonstrating that a possible event on one Unit will not affect the performance of the safety functions/operation of the adjacent Unit.

Ad c.3) MO34 nuclear installation, like other operating nuclear units in the Slovak Republic, are equipped with facilities for severe accidents management. Information on these facilities and their functionality, is available on the website of ÚJD SR, e.g. in Stress Test Reports or PSR of MO3&4 – summary of basic data.

Ad c.4) The design documentation of protection of the MO34 nuclear installation against a small aeroplane fall is subject to the mode defined by Act No. 215/2004 Coll., so it was not made publicly available. The protection includes design measures and activities of employees to be found in operating regulations. Protection of the parts of essential safety systems situated outside the main reactor building (outside the containment) is enhanced by a separate civil structure. Securing of the MO34 nuclear installation against the impact of a small aircraft was implemented at the request of the Commission of the European Community pursuant to Article 43 of the Treaty establishing the European Atomic Energy Community (Euratom), cited in the Final Opinion of the EIA of MO3&4 on the proposed activity Mochovce Nuclear Power Plant WWER 4x440 MW, Project 3. Dealing with the situation of endangering the power plant by an airliner, according to Section 12 par. 1 (e) of Act No. 575/2001 Coll. on organization of government activities and organization of the central government, as amended (hereinafter the “Act No. 575/2001 Coll.”), is under the responsibility of the Ministry of Defence of the SR, quote: “Ensuring the inviolability of the airspace of the Slovak Republic“. Further action by the armed forces related to airspace violation is mentioned in Section 4 of Act No. 321/2002 Coll. on the armed forces of the Slovak Republic as amended (hereinafter only as “Act No. 321/2002 Coll.”). The design documentation on securing MO34 nuclear installation against the impact of a small aircraft is subject to the regime established by Act No. 215/2004 Coll., therefore it has not been disclosed to the public.

Ad c.5) Mochovce NPP (Units 3&4) like other operating nuclear units in the Slovak Republic, is equipped with facilities and systems for managing severe accidents. Information on these facilities and their functionality is available on the website of ÚJD SR, e.g. in Stress Test Reports or the PSR of MO3&4 – summary of basic data. Nuclear Units of nuclear power plants in the Slovak Republic have implemented regulations for managing severe accidents, and there are specialists for managing severe accidents. In managing severe accidents, a strategy for maintaining and cooling molten corium in the reactor pressure vessel, which has been validated experimentally, is applied.

As for the individual statements made by the Regional Government of Lower Austria, which are listed as d.1) to d.3), ÚJD SR as an administrative authority, state the following:

Ad d.1) Maintenance of buildings and structures of Units 3&4 is carried out continuously. The condition of building structures is constantly monitored according to ageing management programs. Among other things, regular inspections and diagnostics of individual building structures, geodetic measurements are carried out, and the condition and quality of steel-fixing and concrete fillings of load-bearing reinforced concrete walls have been verified. The MO34 nuclear installation has never lost the status of a nuclear installation under construction, and has been permanently supervised by the ÚJD SR.

Ad d.2) All safety relevant equipment has undergone extensive testing that has confirmed their full functionality. Testing has been carried out according to pre-established programs and its results are confirmed by protocols. An ageing management system is in place at the power plant and is fully in line with the relevant IAEA recommendations. Diesel generators have undergone extensive refurbishment (including refurbishment at the factory), and testing that has demonstrated compliance

with all safety requirements. Very detailed measurements have been made of all relevant electrical parameters, which have confirmed that in real loading of consumers, the diesel generators meet all the requirements for powering consumers important for safety. For diesel generators, there is an ageing management program developed for them.

Ad d.3) Pre-OSART Mission in Mochovce took place during November and December 2019. IAEA specialists evaluated a total of 13 different areas of activities in the power plant. They identified a number of strengths and deficiencies, for which they formulated relevant recommendations. Slovenské elektrárne, a. s. analysed each identified deficiency and adopted appropriate corrective actions. Corrective actions have specific implementation deadlines and most of them are fulfilled. The power plant invited a follow-up OSART Mission, which was held 18 months after the Pre-OSART Mission. The follow-up OSART Mission will assess the adequacy and effectiveness of the corrective actions taken.

Ad e) As for this statement made by the Regional Government of Lower Austria, ÚJD SR as the administrative authority states that the design foresees a gross electrical output of 471 MW for each Unit. This figure is also provided in the Final Opinion on the EIA for MO3&4, stating: “The rated thermal output of MO3&4 reactors under assessment is unchanged from the original design, and will reach 2x1,375 MWt. The efficiency of MO3&4 reactors will increase from the original 31.7 % to 33.9% as a result of installation of new components (turbines and other technological parts) on the side of the secondary circuit of each Unit of MO3&4. The components of the primary circuit of the nuclear installation will not change compared to the original design. The total electrical power of the reactors will be 2x471 MWe (the original power without modifications on the secondary side was 2x436 MWe).“ The gross electrical output of 471 MW is given in the design and safety documentation of Units 3&4. The power uprate of the Units is achieved exclusively by increasing the efficiency of energy conversion on the secondary side (turbine circuits). The parameters of the primary circuit remain unchanged (1,375 MWt), and therefore no safety margins on the reactor side are used up by increasing the gross electrical output of the Unit.

With regard to the said opinion of the Regional Government of Lower Austria, ÚJD SR as the administrative authority state that, by means of the Resolution No. 387/2015, the Slovak Government approved the draft national policy and national programme of SNF and RAW handling in Slovakia. This document has, including but not limited to, addressed the method of providing safe and sustainable handling with SNF and medium-active radioactive waste (hereinafter referred to as “MAW”) the surface storage of which in the republic RAW repository in Mochovce is not acceptable. The so-called double way is assumed in the long-term strategy, i.e., research and preparation of the deep deposition of SNF and MAW in the territory of Slovakia and parallel monitoring of the international repository development problematic and participation on the related international projects. Based on the geological surveys performed and planned works in the field of research and development, it is assumed the final location to be chosen in 2030. It is assumed the process of evaluation of environmental impacts of the deep repository to be performed in 2030 to 2045. The operation of the deep geological repository itself is foreseen between 2065 and 2115. The possibility of a future reprocessing of SNF remains also open. There is no doubt that the deep geological repository program will not be resolved before the scheduled commissioning of MO3&4, however, until a suitable alternative for storage of SNF and IM-RAW is available, Slovakia will apply a strategy for the long-term safe storage of these materials, for which the technical conditions have been created (expanded storage capacity of the Interim Storage Facility for SNF for the safe long-term storage of SNF and new storage capacity in the Integral RAW storage facility for the safe long-term storage of

RAW that cannot be disposed in a surface type of repository), and institutional assumptions in the form of an existing state agency responsible for the operation of those facilities, as well as for activities in the implementation of the deep geological repository program. The situation for the Slovak Republic in the field of deep geological repository is comparable in terms of approach and timetable to many EU countries, including Austria, e.g. in the implementation of the Austrian program for the management of institutional RAW, or of SNF from the operation of research reactors. The Slovak national policy and national program for the management of SNF and RAW, have been duly notified to the European Commission in accordance with the relevant provision of Council Directive 2011/70/ Euratom of 19 July 2011, establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste.

37. The statement of 15 April 2020 made by GLOBAL2000 on the draft decision for the commissioning of Unit 3 of MO 3&4 includes the following:

a) GLOBAL2000 considers it non-standard that the ÚJD SR publishes the documentation for the draft decision, which did not take the form of final decision. GLOBAL2000 further objects to the formulation of conditions with explanatory notes for Slovenské elektrárne, a.s., which it considers to be a room for further negotiations between Slovenské elektrárne, a.s., and the ÚJD SR.

b) As for the formulation of conditions with explanatory notes, GLOBAL2000 disagreed with the wording of the conditions, in particular with regard to their conditional formulation, because of the impossibility of the public participation in the decision-making process due to the fact that at the time of publication of the documentation used as a basis for the draft decision did not include evidence on the readiness of the buildings and facilities for the operation of Unit 3, confirming the readiness of these facilities for its physical start-up and power testing stages, due to the ongoing tests and modifications.

c) GLOBAL2000 stated that it was not possible at that stage of publication of the documentation for the draft decision, to exercise the right of the public to participate in the decision-making process, and for that reason, proposed to review the draft decision only at the time when all the required facilities necessary for operation of Unit 3 were ready. The procedure set out in explanatory note No. 3 to 9.r) excludes public access to information and public participation in the decision-making process.

d) GLOBAL2000 also pointed at its previous statements, which according to its opinion have not been taken into account until now:

1) As resulting from the comments on PNM34481619 (Evaluation of the fulfilment of the recommended conditions of MoEnv SR set out in the Final Opinion on EIA), sent by GLOBAL2000 to the ÚJD SR, the public does not have information on the Mochovce MO34 nuclear installation and how it differs from the older type of power stations, and how it meets the current safety requirements for mitigating the impact of operation and severe accidents on the environment.

2) Condition 1 of the Final Opinion on EIA MO3&4 states: “The applicant decided to make modifications to selected installations affecting nuclear safety on the basis of amended legislative requirements in force at the time of scheduled completion of Units 3&4 of Mochovce NPP“, which requires full compliance with the legislative conditions in force at the time of power plant completion. In the opinion of GLOBAL this is not met, as this would also include the impact of a large commercial aircraft.

e) In its statement, GLOBAL2000 further commented on two other documents supporting the draft decision, the Evaluation of the method of fulfilment of the recommended conditions set out in the Final Opinion on EIA MO3&4 (“Evaluation of the method of fulfilment of the conditions“) of

12 December 2019, and Chapter 13 of PSR of MO3&4 concerning environmental impacts of 14 September 2018. According to GLOBAL2000, this is a failure to provide precise and specific information on how condition 3.4 of the Final Opinion on EIA of MO3&4 was met, which reflects the requirements of the European Commission (development of a reference deterministic scenario for external source, e.g. impact of an aircraft, in line with the best international practice). The account of fulfilment of the requirements from the Final Opinion on EIA MO3&4 only indicates that the tests and analyses have been carried out and the safety has been proven. However, since this information is classified in SR as sensitive information, the details were not made available to the public.

f) In connection with Condition 1 of the Final Opinion on EIA MO3&4, GLOBAL2000 takes the view that the statutory conditions laid down in Decision No. 266/2008 require that the legal requirements at the time of completion of the nuclear installations be met, given that in such a case they would also include requirements for resistance to the impact of large commercial aircraft. In addition, GLOBAL2000 added that the current state of Units 3&4 meets the IAEA and WENRA requirements: Safety Reference Level for Existing Reactors, but does not meet the requirements of Safety Objectives for New Power Reactors. In the opinion of GLOBAL2000, this is impaired by the ageing of buildings, structures and components from the start of construction period in the 1980s, as well as by the extremely poor quality of construction management, which in addition to WANO, was confirmed by several whistle-blowers and allegedly also by the ÚJD SR.

g) In 2018, GLOBAL2000 highlighted the missing scenario dealing with water temperature in the River Hron, which is required by the conclusions of the Final Opinion on EIA MO3&4. The data presented date from 1982, instead of providing a forecast for the next 60 years.

h) Tables of discharges included in the PSR, Chapter 13, cannot be used for the following reasons:

I. Those values are averages for 4 years from 1999-2002, including EBO1&2, which were shut-down in 2000. This data is more than 20 years old. It would be better to use new data.

II. Why are limit values so high, when they are only drawn to a few per cent?

III. Why are the values for EMO1&2 higher than for EBO3&4 (tritium discharged into the hydrosphere)?

IV. Permitted values for MO3&4 appear to be simply 50% of the values specified in 1997 for 4 Units.

V. Chapter 13.1.4 of POSAR contains misleading information based on which, someone reading this chapter may not realize that tritium is discharged with water and thus uses almost the entire permitted amount.

VI. As in 2018, the public has no information on bilateral seminars (Condition 3.2 of the Final Opinion on EIA of MO3&4).

i) Statement of GLOBAL2000 concerning nuclear liability insurance pursuant to Act No. 54/2015 Coll. in respect of which GLOBAL2000 states that the amount of EUR 300 million provided by the law, falls short of the amount of coverage necessary in the event of a large-scale nuclear incident. For comparison, GLOBAL2000 mentioned calculations by the French IRSN (Technical Support Organisation) for a potential nuclear incident in Europe, the damage of which would amount to approximately EURO 400 billion (Source: [www.nucnet.org/news/nuclear-accident-in-france-could-cost-more-than-eur-400-billion-says-irsn](http://www.nucnet.org/news/nuclear-accident-in-france-could-cost-more-than-eur-400-billion-says-irsn)).

j) The comment concerning the communication policy of the ÚJD SR, in respect of which GLOBAL2000 pointed at the fact that ÚJD SR in Answers to questions on National Report of the Slovak Republic confirmed compliance with the requirements laid down by the Aarhus Convention. GLOBAL2000 stated that ÚJD SR provides the IAEA false information on public information in



accordance with the Aarhus Convention. In that matter GLOBAL2000 added that ÚJD SR informs about compliance with the requirements arising from the Aarhus Convention despite of the fact that the Aarhus Convention Compliance Committee (hereinafter referred to as the “Compliance Committee”) has already found a number of violations.

k) GLOBAL2000 requests that the ÚJD SR should not grant permit for the commissioning of Unit 3.

38. As for the statements made by GLOBAL2000, ÚJD SR states as follows:

ÚJD SR notes that the statements made by GLOBAL2000 were not made in a manner, which would have complied with the statutory requirements for filing. By following Section 19 par. 2 of the Code of Administrative Procedure, ÚJD SR helped both entities and provided instructions for the elimination of existing flaws for both statements. However, both foreign entities again delivered their statements in an incorrect manner, which again did not comply with the statutory requirements for filing. ÚJD SR reviewed the content of both submissions, disregarding the continuing flaw of non-compliance with the statutory requirements. ÚJD SR has done so in the light of the legal opinion expressed in the past and based on previous decision-making practice, according to which strict insistence on compliance with formalities asking to complement electronic filing in accordance with the requirements of Section 19 par. 1 of the Code of Administrative Procedure, could be regarded as inadequate barrier to the possibility of exercising the right for the public participation in the decision-making process on defined activities, and in the right of access to justice guaranteed by Article 6 of the Aarhus Convention.

Ad a) As for this comment made by GLOBAL2000, ÚJD SR states that the publication of the draft decision is not anything non-standard in its decision-making practice. On the contrary, the ÚJD SR also proceeded in the same way when issuing Decisions No. 139/2019 P and No. 140/2019 P. By publishing the draft decision in a form that reflects the actual state of readiness of buildings and facilities of Unit 3, ÚJD SR gave the public the opportunity to exercise its right to participate in the decision-making effectively and in a timely manner. The right of public participation resulting from the Aarhus Convention as an international treaty, by which the Slovak Republic is bound, in Art. 6 par. 3 and 7, explicitly states that: “Public participation processes shall include reasonable timeframe for each phase, which shall allow sufficient time for the public to be informed in accordance with par. 2, and for the public to be able to prepare and participate effectively in the environmental decision-making process” and “The means of public participation shall allow the public to submit in writing or where appropriate, in a public hearing or review with the applicant, any comments, information, analyses or opinions, which it considers relevant in relation to the proposed activity”.

In this context it can be stated that ÚJD SR has transparently disclosed the current state of readiness of Unit 3 as at the date of publication of the draft decision and its supporting documentation, the completeness of the submitted documentation, as well as the state of continuous fulfilment of the legal condition by Slovenské elektrárne, a.s., so that the public and the stakeholders can effectively apply their comments on all current documentation decisive for the granting of a permit in the administrative proceedings. ÚJD SR, as the administrative authority, also relied on Art. 9 par. 3 and 5 of the Aarhus Convention, according to which “... without prejudice to the review procedures referred to in paragraphs 1 and 2, each Party shall ensure, if the conditions set out in its national law are fulfilled, if any, that members of the public have access to administrative and judicial proceedings enabling acts or omissions by private individuals and public authorities contrary to its

national environmental law to be called into question“ and “With a view to ensuring the effectiveness of the provisions of this Article, each Party shall ensure that in order to inform the public of access to administrative and judicial review, and consider setting up appropriate support mechanisms to remove or reduce financial and other barriers to access to justice.“ Therefore, in accordance with the rights deriving from the Aarhus Convention, ÚJD SR provided a period of two months in order to give interested parties established in the Slovak Republic, as well as abroad, the opportunity to comment on the draft decision within a reasonable timeframe, within which the acts are carried out by a private entity – Slovenské elektrárne,a.s.

The ÚJD SR strictly disagrees with the comment of GLOBAL2000 that the indication of the current state of fulfilment of the conditions by Slovenské elektrárne,a.s. for issuing a decision should create room for further negotiations between ÚJD SR and Slovenské elektrárne,a.s. Given that these are legal requirements, which must be met within the required time and scope at the time of issue of the permit, their disclosure in no way gives Slovenské elektrárne,a.s. room to negotiate conditions other than those explicitly required by the legislation.

Ad b) As for this statement made by GLOBAL2000, ÚJD SR as the administrative authority states that the statement of GLOBAL2000 is in line with the information contained in the draft decision, which was published on 15 February 2020 on the website of the Authority. At the moment of publication of the draft decision, Slovenské elektrárne, a. s. had not yet submitted to ÚJD SR proof of readiness of buildings and facilities for operation of Unit 3, and of buildings and facilities common to Units 3&4 used for operation of Unit 3 confirming the readiness of these facilities for commissioning of Unit 3 for the physical start-up and power testing stages referred to in Annex 1, C (s) of the Atomic Act, and in accordance with Annex 4 B (I) (A) par. 5 and 7 of Decree No. 430/2011. In the draft decision, ÚJD SR justified this in great detail with the following text:

„ÚJD SR took as a basis the current state of readiness of facilities of Unit 3 for commissioning as at the moment of publication of this draft Decision (ie. 15 February 2020). ÚJD SR assumes that at the date of the expected future decision in the case, this condition will be fully or substantially fulfilled. ...However, the justification for the envisaged future decision will specify, how Slovenské elektrárne, a.s., complied with the relevant requirement of Annex 1 Section C(s) of the Atomic Act and of Annex 4 Section B (I) (A) paras 5 and 7 of Decree No. 430/2011. The substantive reason for mentioning condition B.1 in this draft Decision is, in particular the following:

- the electromagnetic compatibility tests for Unit 3 management and control system equipment have not been completed. These tests shall be carried out in accordance with the schedule at the final stage of preparation of the Unit for commissioning,
- it is necessary to complete modification of the distribution of circulating cooling water in the draft cooling towers of the circulating water,
- it is necessary to terminate the preservation mode of secondary circuit equipment of Unit 3 (turbine circuits). These need to be interconnected, perform prescribed activities (non-destructive tests, flushing and pressure tests) and carry out related tests.

The above prevent Slovenské elektrárne, a. s. from elaboration of a complete proof on the readiness of Unit 3 equipment for commissioning as at the moment of publication of this draft

Decision. However, this situation is fully in line with the staged approach of the final phase of preparation of Unit 3 for commissioning“.

Recognizing this fact, ÚJD SR published a table, which is part of par. 9.s) of the published draft decision (proofs of readiness for commissioning) with extensive information on the current state of implementation of programs of inactive testing of facilities of Unit 3 as at the moment of publication of the draft decision (15 February 2020). The aim of publication of the current state of implementation of programs of inactive testing was to give the parties and the public the fullest possible information on the state of their implementation. It should be stressed that it is the results of the program implementation of inactive testing that are an essential source of information for the Final Report for Unit 3 on the overall readiness of Unit 3 and common facilities of MO3&4 for commissioning. At the same time, by publishing the list of programs of inactive testing and their current status, ÚJD SR wished to notify the parties and the public that Unit 3 is in the final stage of finalizing these tests, which explicitly results from the high degree of finalization at the date of publication of the draft Decision.

The table included in par. 9.s) of the published draft decision (proofs on the readiness for commissioning) lists a total of 143 programs of functional tests of system/stage tests that are carried out under inactive conditions. Of these programs, a substantial part had been completed as of the date of publication of the draft decision (15 February 2020) (or completed at the stage of inactive testing – if the implementation of these programs is to continue during the physical start-up or power testing). The implementation of part of the programs was not completed as at 15 February 2020 due to ongoing repairs (4 programs), due to continuing preservation regime of turbine hall equipment (7 programs), or for other reasons (22 programs). Other reasons mean the inclusion of the implementation of part of the program in the schedule of inactive testing in its final stage. All these unfinished programs of inactive testing were at an advanced stage of implementation as at 15 February 2020. In the draft decision, the ÚJD SR made an assumption that “...at the date of issue of the envisaged future decision in the case, Slovenské elektrárne, a. s. will ensure the full completion of testing of other systems...” and for this reason ÚJD SR will state in the envisaged future decision on the case: “... or a complete list of programs or only a list of those programs, the implementation of which is not completed (if such programs would exist) or only states that all programs of inactive testing have been fully implemented.” In the explanatory note to point 9 s) ÚJD SR stated clearly that the completion of implementation of all programs is a condition for the start of commissioning of Unit 3, and explicitly stated this condition in the draft decision and conditions A.1 and B.1. ÚJD SR thus unequivocally assured the parties and the public that it would not permit the start of commissioning of Unit 3 without fully completing the testing of its facilities under inactive conditions.

At the same time, ÚJD SR by formulating conditions A.1 and B.1 of the draft decision, which was published on 15 February 2020, has made it very clear that the submission of an evidence on the readiness of buildings and facilities for the operation of Unit 3, and buildings and facilities common to Units 3&4 and used for operation of Unit 3, confirming the readiness of these facilities for commissioning of Unit 3 for the stages of physical start-up and power testing according to Annex 1 C (s) of the Atomic Act, and in accordance with Annex 4 to the Atomic Act, part B (I) (A) par. 5 and 7, is a mandatory condition for the issue of a permit for the commissioning of Unit 3 and related permits.

ÚJD SR considers the statement of GLOBAL2000, referred to in point b) on the impossibility of public participation in the decision-making process to be unfounded.

Note: Condition A.1 is not part of this Decision, as Slovenské elektrárne, a.s. completed in full the tests of facilities that were listed as not completed in the original condition A.1 of the draft Decision published on 15 February 2020.

Ad c) As for this comment ÚJD SR states that at the stage of publication of the draft decision and its supporting documentation it was not the decision itself (containing several types of permits), but only its draft and supporting documentation available to ÚJD SR at the time of its publication. ÚJD SR relied on the abovementioned provision of Art. 6 par. 2 (b) of the Aarhus Convention, according to which the public concerned has the right to be informed of the substance of possible decisions or of a draft decision in decision-making processes relating to the environment. The purpose of disclosure was to enable the public participation on the decision-making process at all stages, including the possibility of public participation in the draft decision, and its substance, and the associated possibility to make comments. Thus in no way should the conduct of the ÚJD SR be interpreted as preventing the exercise of the public's right to participate in the decision-making process. On the contrary, ÚJD SR sought to bring it as close as possible to the legal situation guaranteed by the Aarhus Convention and national legislation, which in Section 33 par. 2 of the Code of Administrative Procedure obliges the administrative authority "[...] to give the parties and the stakeholders the opportunity to comment, before the decision is issued, on its basis and also on the method of its establishment, and where appropriate, propose that it be supplemented."

Nor can the publication of the draft decision and its supporting documentation be interpreted in any way as the actual issue of the decision in the administrative procedure. It is therefore excluded that by fulfilling the obligation imposed on it as an administrative authority by law, ÚJD SR deprived the stakeholders of the possibility to participate in the decision-making process. ÚJD SR also adds that the parties and the general public were informed in good time of the date of disclosure of the supporting documentation for the draft decision, which preceded the decision on the case itself, which is subject to the possibility of challenging it and reviewing it in the regime of administrative justice. It is clear from this that there was nothing to prevent the interested public to exercise its right to consult the remaining requested documentation in the administrative file at the administrative authority at the time, when it was at the disposal of the administrative authority. The ÚJD SR does not question the limited possibilities of carrying out a procedural act during the time of emergency due to the spread of COVID-19, however states that the possibility of consulting the administrative file existed continuously for the entire duration of the administrative procedure. During the emergency in the Slovak Republic, the ÚJD SR did not even limit the possibility of consulting the file, and in case of interest by stakeholders and other public, would have allowed administrative act to be performed with appropriate anti-epidemiological measures. Taking into account the fact that the ÚJD SR has not received a request for consulting the administrative file before and during emergency, it considered that the interested entities have not shown an interest to familiarize with its entire contents.

Explanatory note No. 3 to point 9.s) of the draft decision published on 15 February 2020 on the website of ÚJD SR, to which GLOBAL2000 refers to, is merely a statement that "...the envisaged future decision on the case will be issued ... only when proven... that there are no such punch list items and deficiencies that could affect nuclear safety". This statement is quoted from Decree No. 430/2011 (Annex 4 part B (I) (A) par. 5 and 7 of Decree No. 430/2011). As to point 9.s), it is stated in this context that ÚJD SR would consider the failure to complete certain tests under inactive conditions to be such a punch list item and deficiency that affects nuclear safety.

ÚJD SR expressed a clear requirement for full completion of testing of Unit 3 facilities in inactive conditions prior to loading the first fuel assembly to Unit 3 reactor. The table, which is part of point 9.s) of the published draft Decision (proofs of readiness for commissioning) the ÚJD SR even disclosed extensive information on the current state of implementation of programs of inactive testing of Unit 3 facilities as at the moment of publication of the draft decision (15 February 2020). The aim of disclosing the current state of implementation of programs of inactive testing was to give the parties and the public the most complete information about the status of their implementation. It should be stressed that it is the results of programs of inactive testing that are an essential source of information for the Final Report on Unit 3 commissioning. At the same time, by publishing a list of programs of inactive testing and their current status, ÚJD SR wished to inform the parties and the public that Unit 3 is in the final stage of finalization of these tests, which is resulting from explicitly high degree of finalization of these test as at the date of publication of the draft decision.

Ad d.1) As for this statement made by GLOBAL2000, the ÚJD SR as the administrative authority states the following:

- Information on MO3&4 Project was disclosed to the public in a Report on the proposed activity for environmental impact assessment under Act No. 24/2006 Coll. (July 2009).
- Documentation of the administrative proceedings No. 1.1 and other administrative proceedings related to the application of Slovenské elektrárne, a. s., for issue of a permit for commissioning of nuclear installation MO3&4 (administrative proceedings Nos. 1.2, 1.3, 2.1, 2.2, 2.3, 3.1, 3.2 and 3.3) with removed sensitive information according to their definition in Section 3 par. 16 and 17 of the Atomic Act, was disclosed by ÚJD SR from 16 March 2017 until 30 June 2017 in rented premises at Mochovce.
- On 27 November 2019, an oral hearing was organized with local survey of Unit 3 objects and in the scope of buildings and facilities common to Units 3&4, which are needed for operation of Unit 3, in connection with the application for a permit for an early use of Mochovce Nuclear Power Plant WWER 4x440 MW Project 3. ÚJD SR notified the parties and the public about the date of the oral hearing connected with local survey in writing, including by a public decree. ÚJD SR published the details of the organization of this local survey on its website. The procedural act was attended by the parties, including representatives of Slovenské elektrárne, a. s., a representative of GLOBAL2000 and representatives of local government, as well as representatives of public administration bodies concerned. Any party, including the public, could take part in the visual inspection, and obtain the requested information on the MO3&4 Project.
- The ÚJD SR published on its website the PSR – a summary of the basic data provided to the public on 189 pages describing the nuclear installation of MO3&4, its area and the surroundings. This document also includes information on the severe accident management systems, including relevant photos. This document contains data on the environmental impact of the operation of MO3&4 nuclear installation.

For the reasons set out above, the ÚJD SR disagrees with the argument of GLOBAL2000, that the public does not have information on the Mochovce nuclear installation and how it differs from older type of power plants, and how it meets the current safety requirements for mitigating the environmental impact of operations and severe accidents. The ÚJD SR confronts the MO3&4 Project with the applicable legislative requirements.

Ad d.2, ad e) As for these statements made by GLOBAL2000, ÚJD SR as an administrative authority states the following: The relevant condition from the Final Opinion on EIA MO3&4 reads as follows: “3.1 After granting a permit for commissioning of nuclear installation, to ensure that all conditions set out in the ÚJD SR Decisions No. 246/2008, No. 266/2008 and No. 267/2008 are met, after issuing permit by ÚJD SR for commissioning and operation of MO3&4, ensure that all conditions specified in the relevant ÚJD SR permits are met“. Showing fulfilment of conditions of the ÚJD SR Decision No. 246/2008 of 14 August 2008 which was confirmed by the second-instance ÚJD SR Decision No. 291/2014 of 23 May 2014 and ÚJD SR Decisions No. 266/2008, and No. 267/2008, is included in the reasoning of this Decision. The design documentation of protection of the MO3&4 nuclear installation against a small aeroplane fall is subject to the mode defined by Act No. 215/2004 Coll., so it was not made publicly available. The protection includes design measures and activities of employees to be found in operating regulations. Protection of the parts of essential safety systems situated outside the main reactor building (outside the containment) is enhanced by a separate civil structure. Addressing situation in case of a threat to a power plant by an airliner, pursuant to Section 12 par. 1 (e) of Act No. 575/2001 Coll., under the competency of the Ministry of Defence of the Slovak Republic, quote: “Ensuring the inviolability of the airspace of the Slovak Republic“. Further action by the armed forces related to airspace disturbance is set out in Section 4 of Act No. 321/2002 Coll. The design documentation of MO3&4, part on protection against impact of a small aircraft, is subject to regime provided for by Act No. 215/2004 Coll. and therefore was not made available to the public.

Ad f) As for this statement made by GLOBAL2000, ÚJD SR as an administrative authority states the following – the Project of Units 3&4 complies with the requirements of the ÚJD SR Decision No. 246/2008 of 14 August 2008, which was confirmed by second instance ÚJD SR Decision No. 291/2014 of 23 May 2014 and ÚJD SR Decision No. 266/2008 a.č. 267/2008. Showing fulfilment of conditions of ÚJD SR Decision No. 246/2008, confirmed by Decision No. 291/2014, and Decisions No. 266/2008 and No. 267/2008, is included in the reasoning of this Decision. WENRA Safety Objectives for New Reactors are valid since 2010, and they apply for the MO3&4 Project as reference for identifying reasonably practicable safety improvements. Project MO3&4 meets important safety objectives of WENRA Safety Objectives for New Power Reactors, including dealing with severe accidents associated with melting of fuel. Prior to the start of completion of the Units, an extensive program of refurbishments of Units 3&4 equipment (including repairs at the manufacturers) was carried out. Buildings and selected equipment and systems/components are subject to ageing management programs. ÚJD SR verifies all information from the employees of Slovenské elektrárne, a. s. and their contractors (according to GLOBAL2000, these are “Whistle-blowers“), to remedy confirmed deficiencies and orders appropriate corrective actions.

Ad g) As for this statement made by GLOBAL2000, ÚJD SR states the following: MO3&4 has a closed circuit of cooling system with cooling towers. The consumption of cooling water, pumped from the river Hron, is relatively low for such a cooling system. The Mochovce NPP has procedures for operating personnel in case of reduction in the amount of water taken from the River Hron, replenishment of water to cooling circuits can be provided from back-up sources to fulfil their safety function. For this purpose, the Mochovce NPP has established procedures that have been tested on Units 1&2 of Mochovce as part of Stress Tests following the Fukushima accident and on the Unit 3 by means of a separate test.

Ad h.1 to h.5) As for these statements made by GLOBAL2000 under h.1) to h.5), ÚJD SR states the following: Supporting documentation for the Decision in administrative proceedings Nos. 2.1, 2.2 and 2.3, were published on the website of ÚJD SR and on the COENB on 15 February 2020 as supporting documentation, by disclosing of which in the administrative proceedings in question, Section 33 par. 2 of the Code of Administrative Procedure is implemented, where the parties are given the opportunity to comment on the file and the manner of how it was established or to propose supplements to it, prior to issuing a decision. Part of this documentation is also Chapter 13 of PSR of MO3&4 (Impact of MO3&4 on the environment, rev. 17). In this revised Chapter 13 of PSR of MO3&4, the deficiencies are eliminated, which ÚJD SR identified during assessment of this chapter as part of the documentation in the previous administrative proceedings.

ÚVZ SR has issued permit No. OOPŽ/4603/2019 of 25 September 2019 for the release of radioactive substances produced in operation of Units 1&2 and 3 of Mochovce from administrative control, when discharged into the environment. As stated in the permit, the basic authorized limit for limiting the exposure of residents living around the nuclear installation caused by radioactive substances released into the air and surface waters in the operation of Unit 1&2 and 3 of Mochovce, the effective dose of a representative person is 75 µSv per calendar year:

- Effective dose of 70 µSv per calendar year for discharges into the air,
- Effective dose of 5 µSv per calendar year for discharges into surface waters – the River

Hron.

At the same time, ÚVZ SR imposed an obligation on Slovenské elektrárne, a. s. to use a well-specified calculation code for the model evaluation of population exposure caused by radioactive materials released from administrative control and discharged into the environment during normal operation of Units 1&2 and 3 of Mochovce. In its decision, ÚVZ SR also set annual reference levels for the discharge of radionuclides into the air and to the hydrosphere. These annual reference levels are designed so that even if they are reached, a multiple margin is secured till the value of the authorized limit. By its decision, ÚVZ SR also established investigative levels for radionuclides discharged into the air in Bq/day and to the hydrosphere in Bq/m, 3 and an obligation for Slovenské elektrárne, a. s. to ensure that well specified preventive actions are taken when reaching annual reference levels of discharges and investigative levels. Furthermore, ÚVZ SR established a list of radionuclides that need to be monitored before they are released into the environment, and the requirements for such monitoring.

The requirements arising from Decision of ÚVZ SR (No. OOPŽ/4603/2019) are incorporated in the Limits & Conditions for MO3&4, ÚJD SR Decision No. 205/2020 of 17 July 2020. In the PSR of MO3&4 the requirements of ÚVZ SR Decision (No. OOPŽ/4603/2019) will be incorporated at the next planned revision of PSR of MO3&4.

- Statement by GLOBAL2000 h.1): In reaction to this statement, ÚJD SR states that the values of actual discharges into the atmosphere and to hydrosphere are given in tables of the relevant chapter of PSR for the reference Units of EMO 1&2, including their comparison with the annual reference levels for the period 1998 to 2014. Data on limit values (currently annual reference levels) for Units 3&4 of Jaslovské Bohunice Nuclear Power Plant and for the Jaslovské Bohunice NPP Units 1& 2 in decommissioning, are given in annex and serve for comparison of both sites.

- Statement by GLOBAL2000 h.2): On this statement ÚJD SR states that the question of GLOBAL2000 is directed towards relatively low values of actual discharges into the atmosphere for Units EMO 1&2 when compared to annual reference levels (incorrect term “limit values”). The annual reference levels are set relatively high, but at the same time conservatively, so that even when

they are reached, the authorized limit is not exceeded. However, Slovenské elektrárne, a. s. is obliged to analyse all anomalies and achieving so-called investigative levels.

- Statement by GLOBAL2000 h.3): In response, ÚJD SR states that annual reference levels for tritium discharges depend on a number of factors, which are different for the Mochovce and Jaslovské Bohunice sites (e.g. different recipient, different population density in the neighbourhood of discharge to the relevant recipient, and other). Therefore, the annual reference levels for different sites cannot be the same.

- Statement by GLOBAL2000 h.4): In response, ÚJD SR states that annual reference levels, which were set for the two Units at Mochovce site (EMO 1&2), and which are valid for 3 Units at Mochovce site (Units 1&2 and Unit 3), are usually in a ratio of 2:3. This is due to the fact that the route of release of radioactive materials into the hydrosphere is common for all 3 Units, and ventilation stacks of both power plants are relatively close and have the same height. Input data for the calculation of the authorized exposure limit for limiting population exposure and thus also for setting annual reference levels are the same for all three Units.

- Statement by GLOBAL2000 h.5): in reaction to this statement ÚJD SR states that Chapter 13.1.4 of PSR of MO3&4 contains data on the radiological impact of tritium discharges into the hydrosphere correctly stated. There is no misleading information.

Ad h.6) As for this statement of GLOBAL2000, ÚJD SR states the following: Final Opinion on EIA MO3&4 contains par. 3.2 Recommended Conditions for the stage of construction and operation of the proposed activity: “3.2 Continue to provide information and organise seminars in areas of common interest in nuclear safety with Austrian experts, within the framework of the relevant bilateral Slovak-Austrian Agreement within the European Atomic Energy Community, Euratom, coordinated by the ÚJD SR and accept the conclusions reached from these expert consultations.” Public access to this information is governed by the provisions of a bilateral agreement made between the governments of both countries.

Ad i) In response to statement made by GLOBAL2000, ÚJD SR states that the liability of a nuclear operator is limited in the regime of civil liability for nuclear damage. Liability limitation is one of the key principles, on which the current liability regime is built. The principle of limited liability is enshrined in international conventions, of both Vienna, and Paris systems. The Slovak Republic is a contracting party to the Vienna Convention on Civil Liability for Nuclear Damage, published in the Collection of Laws of SR under the Notice of the Ministry of Foreign Affairs of the Slovak Republic No. 70/1996 Coll. (hereinafter referred to as the “Vienna Convention”).

The ÚJD SR further states that the liability of a nuclear operator for nuclear damage is also limited by other countries of the EU, despite being associated in a system other than the Slovak Republic. These are the countries of the Paris system, where, although the Paris Convention on Third Party Liability in the Field of Nuclear Energy of 1960 (hereinafter referred to as the “Paris Convention”), and Additional Protocol to the Paris Convention on Third Party Liability in the Field of Nuclear Energy of 1963 (hereinafter referred to as the “Brussels Protocol”) allow for a higher liability limit than the one set by the Vienna Convention, however, both Conventions allow for a liability limit of up to EUR 1.5 billion even after their revision. However, the revised version of the Paris Convention of 2004 and the Brussels Protocol of 2004 enters into force on 1 January 2022. In order to have a complete set of information, the ÚJD SR will, for the purposes of this administrative procedure, deal exclusively with the international treaty, by which the Slovak Republic is bound.



The Vienna Convention in Art. V par. 1 provides that the State may limit the liability of nuclear operator, but the minimum level of liability coverage should be USD 5 million for each nuclear event. Pursuant to Art. V par. 3 of the Vienna Convention, the accounting unit, USD, referred to in the Vienna Convention is equal to the value of USD expressed in gold as at 29 April 1963, i.e. USD 35 per troy ounce of net gold. The amount of the nuclear operator's liability limit as calculated under Art. V of the Vienna Convention is enshrined in Section 5 of Act No. 54/2015 Coll. This provision sets a liability limit of the nuclear operator operating nuclear facility for energy purposes up to EUR 300,000,000. The ÚJD SR further states that the document proving that the condition of securing financial coverage of Slovenské elektrárne, a.s., for permit in the required amount is part of the submitted documentation, as referred to in point 11.

39. GLOBAL2000 in the context of the amount of liability coverage of Slovenské elektrárne, a.s., further mentioned foreign source based on calculations by the French IRSN (Technical Support Organisation) for a possible nuclear event. To that source it should be noted that it uses calculations exclusively in the context of nuclear incident in French NPPs, and the article does not address possible incident elsewhere in Europe, as pointed out by GLOBAL2000. It should also be stressed that the calculations relate to a nuclear incident of an extent of the one in Fukushima, caused by the tsunami and Chernobyl accident. The ÚJD SR took note of the comments made by GLOBAL2000, but in view of the legally non-binding nature of the reference, which does not create any obligations for the entities of this administrative procedure, it is not for the ÚJD SR to take an opinion on this issue and will not take it into account for the reasons set out above. The legal obligation of Slovenské elektrárne, a.s., under Section 8 par. 1 of Act No. 54/2015 Coll., is to submit to the ÚJD SR proof of securing financial coverage for nuclear liability in the procedure for the issue of a permit in the required form. Under the legislation in force, Slovenské elektrárne, a.s., have fulfilled a statutory obligation and have submitted to the ÚJD SR the required document proving the financial coverage for nuclear liability as stated in point 11 of the draft decision.

On this basis, it can be concluded that the comment made by GLOBAL2000 does not concern the failure by Slovenské elektrárne, a.s., to comply with the legal requirements necessary for issuing the permit, nor an error on the part of the administrative authority.

It follows from the foregoing that the comment made by GLOBAL2000 on the financial coverage for nuclear liability of Slovenské elektrárne, a.s., is not substantiated.

Ad j) In this regard, the ÚJD SR states that the claim of GLOBAL2000 is misleading and does not reflect the actual state of its communication policy. In its response to the National Report under the Convention on Nuclear Safety, page 25, the ÚJD SR stated that it proceeds in accordance with the Code of Administrative Procedure and the Aarhus Convention when informing the public about decisions and important information. On this basis, it not only publishes them on its website, but also delivers them to interested foreign entities by e-mail. The ÚJD SR is not aware of any reason that would indicate that the method of communication strategy, to which GLOBAL2000 refers to, is contrary to the idea of transparency, which the ÚJD SR adheres to when communicating with the public.

In the past, the Compliance Committee has found non-compliance in the approach applied by the ÚJD SR when handling sensitive information, but that case did not concern the method how decisions and important information was notified through the website of the ÚJD SR, as stated by GLOBAL2000. It is also necessary to add to this statement that the ÚJD SR has made a number of fundamental regulatory adjustments and changes in the approach to handling sensitive information in

order to comply with the principles of the Aarhus Convention. In its Second Progress Report of the Slovak Republic, the Compliance Committee itself noted significant improvements on the part of the Slovak Republic, in which it appreciated the steps taken by the ÚJD SR in adapting the Directive on the identification and removal of sensitive information in the documentation to be made available to the public. The Compliance Committee also designated the Second Progress Report of the Slovak Republic as clear, detailed and well structured, providing supporting evidence in both English and Slovak language versions, which in the words of the Compliance Committee, serve the interests of transparency.<sup>1</sup> After sending the Third Progress Report on 01/10/2020 and responding to the additional inquiries of the Aarhus Convention Secretariat, the Compliance Committee issued the Report of the Compliance Committee on compliance by Slovakia on 31/08/2021 expressing high satisfaction with the materials submitted to the SR for the decision VI/8i regarding the case ACCC/C/2013/89<sup>2</sup>. In the report, the Compliance Committee also pointed out Slovakia as an example of engagement in the problem resolution to be used as a model for other member states of the Aarhus Convention. The Compliance Committee has also noted compliance with Article 2 of the Decision VI/8i.<sup>3</sup>

Therefore, the ÚJD SR does not share the statements made by GLOBAL2000, and leaves an assessment of the compliance of the legal situation with the provisions of the Aarhus Convention with the Compliance Committee which understands that Slovakia currently complies with the Aarhus Convention. Therefore, the ÚJD SR will no longer deal with this comment in the present decision.

40. The statement of 6 April 2020 made by MBL, states the following facts:

In its statement regarding the basis for the decision, MBL followed up the communication with the ÚJD SR regarding request for access to information (hereinafter only as the “info request”) pursuant to Act No. 211/2000 Coll. on free access to information and on amendments to certain laws (Freedom of Information Act) as amended. The comments on the supporting documentation for the decision concerned four areas.

a) MBL states that being the contractor for Slovenské elektrárne, a. s., it performed part of the work on seismic reinforcement of Unit 3, and is therefore also the author of the relevant documentation on the work done. In that regard, MBL followed in its statement that this documentation was subject to the right of retention to secure account receivable established by the Notice on exercising the right of retention of 18 June 2018 under ref. MS/094/2018, which was attached to the statement. The first comment concerned the originality of the documentation for the work of seismic reinforcement of Unit 3 and/or Unit 4 of the MO34 nuclear installation. MBL, pointed at the responses of ÚJD SR that were subject of information requests from 30 July 2019 and 11 March 2020. In that matter, the ÚJD SR provided information that “For the final building approval decision it is necessary to submit original documentation, or where appropriate notarized copies conforming

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<sup>1</sup> Second progress review of the implementation of decision VI/8i on compliance by Slovakia with its obligations under the Convention, p. 4, available on the website: [https://www.unece.org/fileadmin/DAM/env/pp/compliance/MoP6decisions/VI.8i\\_Slovakia/Correspondence\\_with\\_Party/Second\\_progress\\_report/Second\\_progress\\_review\\_on\\_VI.8i\\_Slovakia\\_adopted.pdf](https://www.unece.org/fileadmin/DAM/env/pp/compliance/MoP6decisions/VI.8i_Slovakia/Correspondence_with_Party/Second_progress_report/Second_progress_review_on_VI.8i_Slovakia_adopted.pdf)

<sup>2</sup> „The Committee welcomes the constructive engagement of the Party concerned and the quality of its reporting throughout the intersessional period, which the Committee considers may serve as a model for other Parties.“

<sup>3</sup> [https://unece.org/sites/default/files/2021-08/ECE.MP\\_PP\\_2021.56\\_ac.pdf](https://unece.org/sites/default/files/2021-08/ECE.MP_PP_2021.56_ac.pdf)

to the original, not to the copy submitted to the notary public for verification.“ Following the response of the ÚJD SR, MBL raised doubts that in the context of final building approval procedure, the originals or certified copies of the documentation for the work of seismic reinforcement were not submitted to the ÚJD SR. It was also stated in that regard that Slovenské elektrárne, a.s., do not hold originals of the required documentation in the administrative procedure, since this documentation is subject to a right of retention based on the Contract on Work made between MBL and Solesi S.p.A.

b) The second comment concerned the existence of a right of retention on documentation, which according to MBL, should not have been in the right of disposal of Slovenské elektrárne, a.s., or Solesi S.p.A. In the context of the second comment, it was reiterated that the documentation submitted by Slovenské elektrárne, a.s., to the ÚJD SR in the final building approval procedure, is not the original.

c) According to the statement of MBL, Slovenské elektrárne, a. s. can demonstrate compliance with the condition of seismic reinforcement of Unit 3 only if it submits all seismic reinforcement documentation to the ÚJD SR in originals or copies certified by a Notary.

d) In its statement, MBL strictly requested ÚJD SR to take steps to establish the authenticity and completeness of the documentation submitted by Slovenské elektrárne, a.s.

#### 41. Reaction of the ÚJD SR on the statement made by MBL:

Ad a) The ÚJD SR stated that in the given matter it is a commercial and a legal relationship between MBL and Solesi S.p.A., and for this reason the issue relating to the right of retention is not the subject of administrative proceedings Nos. 2.1, 2.2, and 2.3.

Ad b) Since this statement concerns protocols, which have been identified as part of the documentation demonstrating seismic reinforcement of Unit 3, ÚJD SR has carried out a verification of the status of protocols. This verification was part of an inspection by the ÚJD SR, the results of which in relation to the part of the statement made by MBL, are as follows:

- ÚJD SR inspectors checked the protocols, which are to document the quality of the work carried out on when installing anchoring elements and penetrations at Units 3&4 according to the inspection and testing plan. They randomly selected several anchoring plates/penetrations for inspection, for which MBL did the drilling work.

- Based on the inspection the ÚJD SR inspectors stated that the documentation handed over to Slovenské elektrárne, a. s. did indeed lack the originals of protocols set out in annex to the Notice on exercising the right of retention by MBL. The accompanying technical documentation handed over to Slovenské elektrárne, a. s., contains a declaration made by the contractor, Solesi S.p.A, that the originals are retained by the contractor for these works, MBL.

- Other protocols related to work on the installation of anchoring plates/penetrations, are available as originals in the documentation submitted to Slovenské elektrárne, a.s. or are as originals available at Solesi S.p.A. on the construction site of Mochovce Units 3&4. These protocols document the execution of work before and after the drilling.

Ad c) Following the above findings, the ÚJD SR examined, whether there was a legislative requirement obliging it to examine the fulfilment of the condition B.1 contained in the draft decision by means of protocols, the authenticity of which is questioned by MBL. The obligation of the ÚJD SR in this respect arises from the Decree No. 430/2011 and Decree No. 58/2006.

According to Annex 4 part B (I) (A) par. 5 of Decree No. 430/2011, the license holder is obliged to check the readiness of the nuclear installation for commissioning before the start of commissioning in such a way that it “verifies and records in protocols compliance with the success criteria for post-installation tests of systems, structures and components, [...]. The continuation in the start-up shall be conditional on the elimination of punch list items and deficiencies that could affect nuclear safety.” According to Annex 4 part B (I) (A) par. 7 of Decree No. 430/2011, the documents on the readiness of a nuclear installation for commissioning are “Protocols of post-installation testing of systems, equipment and structures”.

According to the above implementing regulations, the ÚJD SR does not have an explicit or implicit obligation to verify the protocols relating to the installation itself. Such an obligation applies only to those protocols that are related to post-installation testing. The internal regulations of Slovenské elektrárne, a. s., which provide for the obligation to draw up “post-installation protocols”, are not a binding document regulating the way the nuclear regulator behaves. It is an internal document of Slovenské elektrárne, a. s., which is not subject to the approval process by ÚJD SR.

The ÚJD SR, as an administrative authority is obliged, in accordance with Section 32 par. 1 of the Code of Administrative Procedure, “to establish precisely and completely the actual state of the matter and for that purpose to obtain the necessary documentation for the decision. In doing so it is not bound only by the proposals from the parties.” Pursuant to Section 32 par. 2 of the Code of Administrative Procedure, the scope and method of determining the supporting documentation for the decision, are specified by the administrative authority. Given that the legislation governing the licensing process of commissioning of a nuclear installation does not require the ÚJD SR to evaluate seismic reinforcement based on installation protocols, ÚJD SR verified the state of seismic reinforcement based on a method that uses factual data to determine the strength of the structures concerned.

- ÚJD SR accepted a complementary method of proving the resistance of the affected building structures, consisting of their statics recalculation using conservative assumption that in each drilling the steel reinforcement in full cross-section was cut according to retained protocols, in accordance with the reinforcement design.
- Slovenské elektrárne, a.s., submitted the results of relevant calculations to ÚJD SR, which prove the static strength and seismic resistance of load bearing structures, as well as the required seismic resistance of the buildings in question.

Ad d) The ÚJD SR inspectors performed an inspection, which focused on the protocols in question documenting the quality of work performed on the installation of anchoring plates and penetrations at Units 3&4 according to the plan of inspections and testing. This inspection was performed, among other things, on the basis of MBL’s statement, which was delivered to the electronic mailbox of ÚJD SR on 6 April 2020 as statement on the supporting documentation for the draft decision. Results of this inspection are summarized in the opinion of ÚJD SR on the statement of MBL in ad c).

For the purposes of issuing permit for an early use of Mochovce NPP WWER 4x440 MW Project 3, within the scope of buildings and facilities for Unit 3 operation, and within the scope of buildings and facilities common to Units 3&4, used for operation of Unit 3, ÚJD SR accepted this method of proving the resistance of affected civil structures.

42. In its statement of 8 April 2020 on the draft decision, Slovenské elektrárne, a. s. proposed amendment to the text of Condition 1:

- a) Change of reference – instead of Section 78 par. 1, make reference to Section 144a of the Building Act.
- b) Correct the error in par. 1, p. 28/xx text: „...which must not be exceeded“.

Note: Condition C.1 is not part of this decision, as Slovenské elektrárne, a.s. completed the technical modification of the fixed fire extinguishing system in full, performed the prescribed tests of this device and submitted a proof of functionality testing of the fixed fire extinguishing system.

43. As for the statement made by Slovenské elektrárne, a. s., ÚJD SR takes the following stance:

Ad. 1) ÚJD SR considers the original reference to Section 78 par. 1 of the Building Act as correct and disagrees with the statement of Slovenské elektrárne, a.s.

Ad. 2) The mentioned values are indeed only investigative levels, and on the basis of the above, ÚJD SR accepted the above request by Slovenské elektrárne, a.s.

MBL delivered on 20 October 2020 into ÚJD SR electronic mailbox position and comments on the basis for the decision draft on issuing the authorization for operation of Nuclear Power Plant Mochovce Unit 3, which was registered under the reg. No. 7274/2020. The submitted position of MBL fulfils all formal requirements of submission in accordance with Section 19 (1) of the Code of Administrative Procedure.

44. In its position MBL states, that it has elaborated documentation on the welds that were performed by certified professional welders of MBL as well as the documentation necessary to hand over individual elements. MBL further on states in its position, that as the contractor of the mentioned work and therefor the author of the documentation in question, it has the only original of the mentioned documentation in its possession due to exercising the retention right, whereas Slovenské elektrárne, a. s. as well as Solesí s. p. a. do not have a copy of this documentation. With reference to Decree No. 430/2011 Coll. (Annex 4 Part B (I)(A) par. 5, 7). MBL states that the requirements for seismic reinforcement of Mochovce Unit 3 can be demonstrated by Slovenské elektrárne, a. s. only under the condition that the original version or notarised copy of the documentation related to seismic reinforcement of Unit 3, including documentation on welds, is submitted to ÚJD SR.

45. ÚJD SR reacted on the position of MBL with the following:

Slovenské elektrárne, a.s., to demonstrate the quality of anchoring elements submitted documentation (certificates of non-destructive tests) in accordance with the inspection and testing plan. Performance of the required non-destructive tests is confirmed by qualified personnel indicating the type and validity of their authorization. To demonstrate the quality of performed welding, Slovenské elektrárne, a. s. submitted the list of welds, that includes basic information on the welds and their performance as well as the list of welders that have performed the welding works during assembly,

indicating the type and validity of their authorization, and certificates on quality control of welding joints. The demonstrated extend of quality of inspected activities according to inspection and testing plan is in accordance with the Decree No 431/2011 Coll. The submitted certificates have the nature of originals.

46. Documentation used as a basis for the Decision in administrative proceedings Nos. 2.1, 2.2 and 2.3 was published again on the website of ÚJD SR, and on the COENB as documentation, the publication of which, in the administrative proceedings in question, implements Section 33 par. 2 of the Code of Administrative Procedure, in which the parties were given the opportunity to comment on its basis and the method of establishing it or to propose its supplement, before issuing the decision. ÚJD SR published the documentation for the decision repeatedly, considering the following circumstances:

- Statement made by GLOBAL2000 on the publication of the supporting documentation for the decision of 15 February 2020.
- Relatively large time gap between the publication of documentation used as a basis for the decision of 15 February 2020, and the possible date for the date of issue of the Decision in terms of compliance with all technical requirements by Slovenské elektrárne, a. s. The delay in meeting the technical conditions for issuing the Decision itself was caused by the measures against the spread of COVID-19 in the Slovak Republic, and their application in Slovenské elektrárne, a. s., and the related slow-down in the pace of completion work on Unit 3, as well as the need to carry out extensive additional inspections of the materials used at Unit 3.
- Taking into account the nature of activity that is the subject of the authorization proceeding, the involvement of domestic and foreign public in decision-making process as well as the impact of epidemiological situation on fulfilment of the decision condition by Slovenské elektrárne, a.s., ÚJD SR was of the opinion that the involved parties should have the opportunity to again familiarize with the current state of requirements fulfilment for issuing a decision in the above mentioned administrative proceedings.

47. Additional basis for the decision was published as follows:

- PSR of MO3&4 was published on 2 November 2020. Administrative proceedings parties, as well as the parties concerned were informed about the publication of POSAR MO3&4 on the ÚJD SR website, by public notice, that was published on, on Town Halls of the municipalities Kalná and Hronom a Nový Tekov (letter ref. no. 7507/2020) and on ÚJD SR website.
- Draft decision in the case of application of Slovenské elektrárne, a. s. for the issue of permits in the administrative proceedings Nos. 2.1, 2.2, and 2.3 was published on 22/01/2021. Administrative proceedings parties, as well as other parties concerned were informed about the publication of decision draft on the ÚJD SR website, by public notice, that was published on COENB, on Town Halls of the municipalities Kalná and Hronom a Nový Tekov (letter ref. no.432/2021) and on ÚJD SR website.

The publication of PSR MO3&4 and the draft decision allowed the exercise of the right of the public, in particular under Art. 6 Section 2 and 3 of the Aarhus Convention. The parties were informed about the publication of the supporting documentation for the decision in administrative proceedings Nos. 2.1, 2.2 and 2.3 by public decree in accordance with Section 10 of the Atomic Act and Section 26 of the Administrative Procedure Code.

48. The first-instance administrative body has asked by letter ref. no. 8389/2020 of 3 December 2020 the chairperson of ÚJD SR as the appellate administrative body pursuant to par. 58 (1) and par. 61 (2) of the Code of Administrative Procedure, in relation to Section 49 (2) of the Code of Administrative Procedure, to extend the period for decision in administrative proceedings no. 2.1, 2.2 and 2.3 by 6 months. The first-instance administrative body justified its request by ongoing extensive inspection of material quality (pipeline components) that were used on Mochovce Unit 3. This inspection is performed by Slovenské elektrárne, a. s. and its contractors. The process of evaluation and interpretation of the inspection results is extremely time consuming and professionally demanding and is not expected to be completed before the period for issuing a decision in the matter has passed. Quality inspection of the used materials (pipeline components) on Unit 3 including its detailed evaluation must be performed/completed before issuing a decision in the matter. Demonstration of required quality of materials (pipeline components) in accordance with valid standards and technical requirements has extreme importance from the point of view of future safe commissioning and operation of Mochovce Unit 3:

The Chairperson of ÚJD SR complied with the request of the first-instance administrative body and extended the period for decision by 6 months. Administrative proceedings parties, as well as parties concerned were informed about the publication of decision draft on the ÚJD SR website, by public notice, that was published on COENB, on Town Halls of the municipalities Kalná and Hronom a Nový Tekov (letter ref. no. 8741/2020) and on ÚJD SR website on 17 December 2020.

49. The basis for the decision in administrative proceedings no. 2.1, 2.2, and 2.3 concerning the application of Slovenské elektrárne, a.s. for the issuance of a permit (i.e., PSR of MO3&4 on 2 November 2020 and the Draft Decision on the Application of Slovenské elektrárne, as for the issuance of a permit in administrative proceedings No. 2.1, No. 2.2 and No. 2.3 on 22 January 2021) was commented by these two parties:

a) On 20 February 2021, MBL delivered to the electronic mailbox of ÚJD SR a statement on the documents of the draft decision, which was registered under reg. no. 1266/2021. The delivered statement of MBL fulfils the formal requirements for filing in accordance with Section 19 par. 1 of the Administrative Procedure Code.

b) GLOBAL2000 delivered its opinion on the draft decision and its documents to the e-mail box of ÚJD SR on 23 February 2021. The delivered statement of GLOBAL2000 was registered under reg. no. 1308/2021. The delivered statement of GLOBAL2000 fulfils the formal requirements of the submission in accordance with Section 19 par. 1 of the Administrative Procedure Code.

50. In its statement of 20 February 2021, MBL repeatedly stated that part of the documentation related to the seismic resistance of Units 3 and 4 of MO3&4 is subject to the retention right applied by MBL to it, and therefore this documentation cannot be disposed of Slovenské elektrárne, as. This documentation is accessible at the MBL, and MBL is willing to release it after payment of its claim.

The statement made by MBL dated 20 February 2021 states the following facts:

- a) MBL cites the provisions of chapter 1.1 of POSAR of MO3&4, which states that: "The aim of PSR of MO3&4 is to demonstrate compliance with the requirements for nuclear safety ... based on an assessment of the solutions proposed in the revised Basic Design and the MO3&4 Detail Design. The power plant project is obliged to prove that the equipment meets its design intent. "It

further states (with reference to chapter 1.3 of PSR of MO3&4) that the designer is the only person authorized to approve changes in design documentation and their compliance with the original design. In this context, it states that: "The designer has issued a technical report which clearly defines that all changes and shifts of works performed on the seismic resistance of Mochovce NPP mean change compared to the original design ... and the only entity authorized to place an order and approve such changes is exclusively the designer". It refers to the specific Quality Management documentation prepared by Slovenské elektrárne, as, or its suppliers, which sets out the principles and procedures for performing drilling work on seismic resistance work for facilities of MO 3&4, and requirements for their documentation (Description of the activities of the designer group on site, EGPI and SE, Technological procedure - installation of plates, Collision management, Installation of plates, Inspection and Test Plan for the installation of plates on concrete and for lining, ITP - penetrations and POM Installation of plates).

Further, it states that the documents: "Detail Design for reinforcement due to seismicity – anchoring and reinforcement of steel platforms", "Detail Design for seismic reinforcement of buildings of active auxiliary operations", "Requirements for evaluation of seismic resistance of structures, systems and components of NPP Mochovce Units 3&4", and "Seismic reinforcement" are the documents referred to by PSR of MO3&4 in its chapters / sub-chapters 2.5.2.2, 2.5.2.3, 2.5.2.5, 2.5.2.6 and 2.5.2.7. PSR of MO3&4 was disclosed as part of the documentation supporting the Decision, on the ÚJD SR website on 2 November 2020.

- b) Repetition of the statement of 6 April 2020 referred to in point 40 in the grounds of this Decision in accordance with MBL's statement on the basis for the decision of 6 April 2020.
- c) With reference to points 1) and 2), it states that without complete and original documentation it is not possible to assess the impacts in case of a seismic event on a nuclear installation and that it is not permissible to replace the original documentation with a form other than the original.
- d) No EFD – Engineering field disposition (hereinafter referred to as "EFD")<sup>4</sup> modifications could be submitted to ÚJD SR, which: "... basically modify the original design, as they are the subject of a retention right ...", which is claimed by MBL.
- e) From the above facts contained in points 1) to 5), MBL concludes that since ÚJD SR did not receive complete documentation proving the seismic reinforcement of Unit 3 of MO3&4, it is not possible to prove changes in the original design and their impact on operational safety of Unit 3 of MO3&4 due to the fact that part of the necessary original documentation is retained by MBL. According to the MBL statement, in this situation it is not possible to prove the fulfillment of the requirements for the quality of the nuclear facility in accordance with Section 19 of Decree no. 58/2006 in the area of its seismic reinforcement.
- f) MBL cites provisions (Section 81 par. 1 and Section 83 of the Building Act and provisions of Section 8 par. 3 and Section 7 par 2 (d) of the Atomic Act, and states that the ÚJD SR is obliged to require the submission of a complete and original documentation and cannot proceed to an assessment of "alternative" documentation, if available: "... documentation showing the actual construction, although Slovenské elektrárne, a.s., failed to submit this documentation to the building

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<sup>4</sup> note: EFD – „engineering field disposition“ – the minor changes are concerned here which have no impact on the basic design and for which a related process and the method of its documentation are defined in the MO34 NPP Quality Management System.



authority by his fault due to negligence of his obligations or obligations of his contractor to pay the subcontractor's claim for carrying out construction work on site“.

- G) It states that Slovenské elektrárne, a.s., could not submit the original documentation to the oral hearings related to the local investigation, as part of it is retained by MBL under the Notice of Exercise of the right of retention. For that reason, it criticizes the draft Decision, which was published as part of the basis for the Decision in the case on 22 January 2021, as incorrect in paragraph 10 on p. 23.

51. Based on the facts stated in points 1) to 7), MBL claims that PSR of MO3&4 does not reflect all the requirements required by law and that it lacks facts proving the safety of the construction in relation to work on seismic reinforcement for Units 3 and 4 of MO3&4. It further claims that the draft decision is premature and as such does not contain the requirements and content requirements set by the Atomic Act and the Building Act and does not oblige Slovenské elektrárne, a.s., to meet the requirements raised in accordance with generally binding legal regulations for safety of construction and operation of Unit 3 and safety of persons in terms of the protection of their lives and health and the protection of the environment.

52. In its statement of 23 February 2021, GLOBAL2000 states:

- a) Reservation against the fact that the supplemented / new draft Decision, which was published on 22 January 2021, does not contain the reactions to the statements made by GLOBAL2000 of 15 April 2020. This statement was submitted to ÚJD SR for the draft Decision in the case which was published on 15 February 2020. However, GLOBAL2000 states that the amended draft Decision published on 22 January 2021 contains a detailed summary of their statement of 15 April 2020.

- b) The amended draft decision published on 22 January 2021 stated that the implementation of certain system test programs had not been completed (namely 3P059, 8P116, 8P117). GLOBAL2000 requests a revision of the draft decision after all relevant components of the nuclear unit under construction have been tested.

- c) GLOBAL2000 does not agree with the publication of only preliminary results of quality inspections of piping components at Unit 3 of Mochovce, because the final results of these inspections could not be included in the draft decision published on 22 January 2021.

- d) GLOBAL2000 refers to the investigation of the National Criminal Agency (NAKA) in the case of the company Inžinierske stavby Košice, a.s. (hereinafter "ISKE")<sup>5</sup>. This company participated in drillings for seismic reinforcement of MO3&4 equipment. GLOBAL2000 points out the potential unreliability of the ISKE documentation and requires a consistent approach by ÚJD SR to verify that the drilling process complied with the prescribed procedure.

- e) GLOBAL2000 requests that the replies to its statement of 15 April 2020 be supplemented. However, it added that it did not have enough information on the PSA study, on the means to address ultimate heat sink in response to the Fukushima accident and in case of multi-unit accidents.

At the end of the statement, GLOBAL2000 expresses its request that no permit be issued for Unit 3 of Mochovce and therefore not be put into operation.

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<sup>5</sup> Currently COLAS Slovakia, a.s., after changing their company name on 5 June 2019.

ÚJD SR comments on the statement of MBL dated 20 February 2021 as follows:

53. ÚJD SR does not have the legal right to examine whether the retention of part of the documentation on drilling works performed on the MO3&4 construction site by MBL and the exercise of the right of retention against this documentation is legal or not. Nor is it entitled to examine the reasons given by both parties to the dispute as justification for their position on the withholding of the documentation (the exercise of the right of retention by MBL). ÚJD SR takes note of the commercial dispute between MBL a Solesi S.p.A.

However, ÚJD SR is obliged to examine whether the missing documentation proves / can prove such properties of buildings, components and equipment that it is necessary to document in order to meet the requirements for nuclear safety. This obligation of ÚJD SR clearly follows from the Atomic Act - especially from Section 4 par. 1 (a) to (d), (j), Section 5 par. 3 (c), (f), (g), (k), in connection with Sections 7 and 19 of the Atomic Act and also from Section 81 of the Building Act in connection with the provisions of Section 121 par. 2 (e) of the Building Act. Likewise, ÚJD SR must in administrative proceedings in the matter of the application of Slovenské elektrárne, a.s. for the issuance of a permit for the commissioning of Unit 3 of MO3&4 and related permits to comply with Section 32 and other provisions of the Administrative Procedure Code.

The ÚJD SR inspectors, on the basis of the Notice on the Exercise of the Retention Right dated 18 June 2018 under stmp. MS / 094/2018, sent by MBL, checked the relevant documentation. This inspection confirmed that part of the documentation on the drillings performed by MBL, which is kept on the premises of Slovenské elektrárne, a.s., is only in copies confirmed by the author's supervision. For the drilling protocols carried out by MBL at Unit 3, for which MBL exercises a retention right, the attached statement from Solesi, S.p.A. states that the originals were created by a subcontractor - MBL and those that are not part of the accompanying technical documentation, Solesi, S.p.A. does not have at its disposal because MBL retained them.

Ad 1) MBL presents correct data from POSAR of MO3&4, which was published as part of the documentation for the Decision in the case for Unit 3. For the sake of completeness, it should be noted that Chapter 1.1 of the PSR is entitled "Introduction", Chapter 2.5 "Documents included in references". The "Documents included in links" section contains a list of documents to which the PSR links. Bibliographic overview of attached documents and references to them are made in the relevant part of PSR of MO3&4 (Safety Guide of ÚJD SR I.1.2 / 2014 Scope and Content of the Safety Report). The detailed procedure for the implementation of changes to the detail design and possibly also the basic design of MO3&4 is given in the quality documentation of Slovenské elektrárne, a.s., inter alia, Staged Quality Assurance Program for Construction and Commissioning (MO34/EPZK-100), which is approved by ÚJD SR Decisions No. 57/2019 of 27 February 2019 (Management System Manual of Slovenské elektrárne, a.s.) and No. 208/2019 dated 8 July 2019. Slovenské elektrárne, a.s. therefore, has established processes that precisely define the procedures for dealing with deviations from the design, including the deficiencies found in the documentation. These procedures are graded according to the severity of the deviation. One example is given by MBL in its statement under point no. 5 (EFD-modifications).

Ad 2) ÚJD SR's response to MBL's statement on the draft Decision, which was published on 15 February 2020, is given in points Ad a), b) and c). This statement of MBL was delivered to ÚJD SR on 6 April 2020 and was registered under reg. no. 2436/2020.

Ad 3) As an administrative body, ÚJD SR is bound by the principle of material truth, which requires that the decisions of administrative bodies be based on a reliably ascertained state of affairs (Section 46 of the Administrative Procedure Code). ÚJD SR, on the basis of evidence proposed by the parties to the proceedings, resp. the parties concerned, must duly ascertain all the facts relevant to the decision. It follows from the above that ÚJD SR is obliged to acquire sufficient knowledge of the factual circumstances of the case, and this situation must be demonstrable and unquestionable. ÚJD SR is obliged to deal with the submissions of all parties. If Slovenské elektrárne, a.s. as a party to the proceedings submits documentary evidence proving the seismic resistance of the Unit 3, ÚJD SR is obliged to deal with this evidence. Slovenské elektrárne, a.s. submitted to ÚJD SR documentation that proves the seismic reinforcement of Units 3 and 4 of MO34, and at the same time demonstrates the static strength and seismic reinforcement of individual load-bearing structures, as well as the required seismic resistance of the buildings. For this purpose, Slovenské elektrárne, a.s. also submitted the results of destructive tests and other measurements, as well as the analysis of the resistance of load-bearing structures prepared by the designer, for which ÚJD SR has prepared an independent evaluation. According to the evaluation of ÚJD SR and its external expert support, for the purposes of proving static strength of the framework structures, outputs of this analysis provide the same evidence as retained drilling protocols.

Ad 4) In its statement MBL states that Slovenské elektrárne, a.s. could not submit the documents on the so-called modifications to the EFD as they are held by MBL. ÚJD SR performed an inspection, which did not reveal any facts that would indicate that Slovenské elektrárne, a.s. is missing some evidence of EFD modifications made. MBL's assertion is also at odds with the content of the Notice on the Exercise of the Retention Right of 18 June 2018, in which MBL does not mention the exercise of the retention right against the EFD documentation.

Ad 5), Ad 6), Ad 7) ÚJD SR responses on the statement of MBL are given in points ad b) and c) of the ÚJD SR response to the statement of MBL on the draft Decision, which was published on 15 February 2020. This statement of MBL was delivered to ÚJD SR on 6 April 2020 and registered under the reg. no. 2436/2020.

54. ÚJD SR disagrees with the statement of MBL in relation to PSR of MO3&4, the draft Decision on which MBL commented and does not agree with its statement that the draft Decision does not oblige Slovenské elektrárne, a.s., to meet the requirements raised in accordance with generally binding legal regulations on construction safety and operation of Unit 3 and the safety of persons in terms of protection of their lives and health and protection of the environment. Slovenské elektrárne, a.s. together with the designer, they documented the fulfilment of requirements for seismic reinforcement of Units 3 and 4 of MO34 and at the same time demonstrated the static strength and seismic resistance of individual load-bearing structures, as well as the required seismic resistance of the buildings, thereby fulfilling the legal requirements. The exhibits submitted and compliance with the defined requirements were reviewed by ÚJD SR and their supporting technical organization statika.sk s.r.o.

55. ÚJD SR reacted to GLOBAL2000 statement dated 23 February 2021 as follows:

Ad a) ÚJD SR responses to the statements of GLOBAL2000 on the documentation for the Decision, which were published on 15 February 2020, on 2 November 2020 and on 22 January 2021, are given

in this Decision. Such a way of dealing with the statements of the party to the proceedings with the basis for the decision, is in full compliance with the Administrative Procedure Code.

Ad b) ÚJD SR's response to the statement of GLOBAL2000 is given in point Ad a), ÚJD SR's response to the statement of GLOBAL2000 on the draft Decision, was published on 15 February 2020. This statement of GLOBAL2000 was delivered to ÚJD SR on 15 April 2020 ÚJD SR and was registered under reg. No. 2608/2020.

Ad c) ÚJD SR published on its website the preliminary results of the quality control of piping components at Unit 3 of Mochovce in the interest of objectively informing the public and parties to the proceedings about it. The publication of preliminary results of the quality control of piping components at Unit 3 was not part of the basis for the Decision. At the time of publication of these preliminary results, all necessary measurements of the quality of the piping components were made, which could have any impact on the safe operation of the Unit. Before issuing the Decision itself in the case, ÚJD SR published the final results of the quality control of piping components at Unit 3 of Mochovce. These final results do not contain any significant changes compared to the preliminary results.

Ad d) ÚJD SR has performed inspections of drilling works for seismic reinforcement of Units 3&4 of MO34 from the very beginning. Based on the results of ÚJD SR inspections, the working procedures of drilling works and related activities were modified to the smallest detail in the quality management documentation of Slovenské elektrárne, a.s. and their contractors. To address cases of potentially unreliable ISKE documentation, a detailed analysis was prepared in 2018 by the author of the Basic Design, which demonstrates the static strength and seismic resistance of individual load-bearing structures that could be potentially weakened by reinforcement failure during ISKE work. This analysis was based on the engineering assessment of such ISKE documentation - the possible impact of drilling on the reinforcement was evaluated directly on-site. For the avoidance of any doubts, in 2021 ÚJD SR ordered a re-evaluation of the ISKE documentation in question and the related addition of the analysis of the resistance of load-bearing structures to all cases in which it is not possible to rule out cut reinforcing steel rebar with complete certainty. This extended analysis was prepared by the designer, and ÚJD SR ensured the elaboration of its evaluation by an independent expert organization. This independent evaluation confirmed the correctness of the methodology used and the results of its application. However, the new (supplemented) analysis did not bring any changes in the static assessment of load-bearing structures weakened by possible cut reinforcing steel rebar compared to the original analysis from 2018. The sufficient strength of the hermetic zone of the Unit 3 of MO3&4 was also proved by the results of an integral test of its tightness and strength by an overpressure of 150 kPa (against the atmosphere), which proved a very good tightness of the hermetic spaces. During this test, the high strength of the hermetic envelope was also demonstrated by tensometric measurements.

Ad e) ÚJD SR responses to the statement of GLOBAL2000 are given in points Ad c), Ad d.1), Ad d.2, Ad e), Ad f), Ad g), Ad h.1) to h.5) , Ad h.6), Ad i), and Ad j) of the UJD SR response to the statement of GLOBAL2000 on the draft Decision, which was published on 15 February 2020. The statement of GLOBAL2000 was delivered to ÚJD SR on 15 April 2020 and was registered under reg. No. 2608/2020. Information on the PSA study is available in the PSR, which was published as part of the basis for the Decision on 2 November 2020 (chapter 07.03 – Probabilistic Analyses). Information on the means for addressing the ultimate heat sink is also available in the PSR, which was published as part of the documents for the Decision on 2 November 2020 (Chapter 07.03 - Systems for mitigating the consequences of severe accidents). For dealing with multi-unit accidents, procedures according to regulations for dealing with severe accidents are to be used. At the same

time, sufficient human resources of emergency response organization are created to manage severe accidents at several units in a given locality or to manage a severe accident at one unit in combination with an emergency condition at another unit.

56. The IAEA Pre-OSART mission took place in MO34 nuclear installation from 18 November to 5 December 2019. The mission aimed to review the nuclear power plant's operational safety performance in accordance with IAEA safety standards, to make recommendations and suggestions for further improvement, and to identify best practices that can be shared with other NPPs around the world. ÚJD SR provided the IAEA inspectors with the necessary cooperation. The Pre-OSART Mission resulted in a report, in which the mission team identified 22 deficiencies, resulting in 14 recommendations and 8 suggestions. One case of good practice was also identified. Slovenské elektrárne, a.s. adopted appropriate corrective actions in response to the recommendations and suggestions from the Pre-OSART mission, which ÚJD SR took note of. The Final Report of the Pre-OSART mission and related corrective actions were published on the website of Slovenské elektrárne, a.s. ÚJD SR agrees with the identified recommendations and suggestions, and continuously monitors their implementation. Based on the evaluation of the degree of severity of MO34 deficiencies identified by the PreOSART mission and the degree of fulfilment of the measures adopted to remove the deficiencies, ÚJD SR states that they do not prevent the issuance of a permit for commissioning. The press release is published on the website of Slovenské elektrárne, a.s.:

<https://www.seas.sk/clanok/misia-maae-videla-ze-v-mochovciach-pred-zacatim-komernej-prevadzky-dodrziavaju-bezpecnost/>

on the IAEA's website:

<https://www.iaea.org/newscenter/pressreleases/iaea-mission-sees-safety-commitment-at-slovakian-npp-ahead-of-commercial-operation>

and on the website of ÚJD SR:

<https://www.ujd.gov.sk/nasledna-pre-osart-misia-maae/>

57. Slovenské elektrárne, a.s., informed ÚJD SR by the letter ref. SE/2021/002201 of 18 January 2021 of the elaboration of new revision of the document Final Report of Unit 3. The Final Report of Unit 3 documents the readiness of Unit 3 – equipment, personnel and documentation for the commissioning. The Final Report of Unit 3 evaluates the test results of facilities in conditions of inactive testing, provides an evaluation of meeting the success criteria of individual tests, Protocol numbers documenting the fulfilment of success criteria of inactive tests, punch list with the deadlines for their removal, the reason for their persistence, and also proof that they do not affect nuclear safety either individually or in their cumulative effect. The vast majority of registered punch list items are of a record nature and relate to the fact that the work on Unit 4 affecting Unit 3 has not been completed yet. The Final Report of Unit 3 documents the state of readiness of the personnel for commissioning of Unit 3, and the readiness of operational documentation for the commissioning. ÚJD SR, using the form of an inspection in Mochovce, continues evaluation of previous revisions of Final Report of Unit 3, performed evaluation of changes in the current revision of Final Report of Unit 3 in comparison with previous revisions and states that the Final Report of Unit 3 is in compliance with the requirements of Section 7(2), items b) and c) of the Atomic Act and Annex 4 part B (I) (A) par. 5, 7, 9, (G) par. 1, 2 of Decree No. 430/2011 Coll.

58. Slovenské elektrárne, a.s., submitted to ÚJD SR the Final Report on the evaluation of materials/metallurgical components used in Unit 3 upon the imposed corrective measure from the

inspection. This Report states that the methodology accepted by ÚJD SR for the purposes of issuing the first-instance Decision No. 156/2021 was followed in verifying the quality of metallurgical components. In accordance with the Report, 3,410 metallurgical components were checked in total. There were 61 cases of material exchange and 293 cases of deviations from the standard (hereinafter referred to as “deviations“). All detected deviations were duly assessed, including laboratory determination of their chemical composition and laboratory determination of their mechanical properties in accordance with the accepted methodology. At the time of issuing the first-instance Decision of ÚJD SR No. 156/2021, twelve metallurgical components were replaced due to the unsatisfactory chemical composition or unsatisfactory mechanical properties. Testing of chemical composition and mechanical properties in the laboratory was performed so that its results meet the requirements of Section 8 of Decree No. 431/2011. ÚJD SR performed inspections on the basis of suggestions that were gradually sent to it by other state administration authorities. These suggestions concerned the scope of documentation demonstrating compliance with the design’s requirements for piping components quality, risk of corrosion of piping materials, storage and installation of signalling and power cables, reliability of emergency diesel generators, integrity of pressurizer electric heaters and some other areas. All these complaints were thoroughly examined and, if they proved to be justified, the necessary corrective actions were taken.

59. ÚJD SR sent a letter reg. no. 2730/2021 of 15 April 2021, calling MBL to submit documents necessary for the taking of evidence in accordance with Section 37 of the Administrative Procedure Code. With this call, ÚJD SR requested MBL to submit drilling protocols within 10 days of its delivery, which document the quality of the work performed by MBL to the extent of: - buildings and rooms of Unit 3 of the Mochovce nuclear facility, - and buildings and rooms common to Units 3 and 4 of Mochovce, which are necessary for the commissioning and operation of Unit 3 of Mochovce.

MBL responded to the call of ÚJD SR with its letter ref. MS/094/2018 of 3 May 2021, which was registered by ÚJD SR on 5 May 2021 under reg. no. 3296/2021. In the letter in question, MBL refused to provide the required documents for the taking of evidence by the date of issuing the first-instance Decision No. 156/2021.

## II.

60. The first-instance ÚJD SR Decision No. 156/2021 of 13 May 2021 was published on the COENB, on the Official Electronic Notice Board of ÚJD SR to be found on the website of ÚJD SR and on the Official Notice Board of ÚJD SR at the entrance to the building of the ÚJD SR registered office at Bajkalská 27, 820 07 Bratislava from 13 May 2021 until 4 June 2021. On 7 June 2021, the anonymized ÚJD SR Decision No. 156/2021 was published on the Electronic Official Notice Board of ÚJD SR, in the section SpK-P, in the section Decisions before entry into force and enforceability on the COENB, on the Official Electronic Notice Board of ÚJD SR to be found on the website of ÚJD SR and on the Official Notice Board of ÚJD SR at the entrance to the building of the ÚJD SR registered office at Bajkalská 27, 820 07 Bratislava.

On 28 May 2021, ÚJD SR received an appeal of GLOBAL2000 of 28 May 2021 (hereinafter only as “Appeal No. 1“), registered under reg. No. 3922/2021. On 11 June 2021, ÚJD SR received the second appeal by GLOBAL2000 of 10 June 2021 (hereinafter only as “Appeal No. 2“) registered under No. 4318/2021. The first-instance functionally competent body at ÚJD SR stated that both appeals (resp. the appeal and its supplementation) by GLOBAL2000 were sent to ÚJD SR

within the deadline set for appeals in accordance with Section 54 para. 1 and par. 2 of the Administrative Procedure Code and were electronically signed by Mag. Agnes Zauner. As the Commercial Register of the Republic of Austria nor any other register of citizens's associations is not freely available and GLOBAL2000 have not submitted such an extract together with the appeals, ÚJD SR will not further examine the legitimacy of this person's actions on behalf of GLOBAL2000. In this procedure, ÚJD SR recognizes and accepts the provisions of the Aarhus Convention. According to Art. 3 par. 1 of the Aarhus Convention, the Slovak Republic is obliged, inter alia, to adopt "... the necessary legislative, administrative and other measures, including measures to comply with the provisions of this Convention concerning information, public participation and access to justice, as well as proper implementing measures, to establish and maintain a clear, transparent and comprehensive framework for implementation; provisions of this Convention." The Aarhus Convention lays down the obligation for States Parties to the Aarhus Convention to respect the participation of the "public" in the activities set out in Annex no. 1 Aarhus Convention. According to Art. 2 par. 4 Aarhus Convention "the public" means one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organizations or groups; GLOBAL 2000, pursuant to Art. 2 par. 4, can be considered as public, regardless of who acts on its behalf. As this is an organization supporting the environment and thus the activities that are the subject of this decision fall within its interest, ÚJD SR will no longer investigate the person who is authorized to act on behalf of GLOBAL 2000 according to their internal organizational structure and accepts Appeal no. 1 and Appeal no. 2, and will deal with them without the need to address aspects of admission. ÚJD SR will presume in the following proceedings that Mag. Agnes Zauner is the person authorized to act on behalf of GLOBAL 2000, and will continue to deliver the documents to her in the same way as before. The obligation of ÚJD SR to admit GLOBAL 2000 and their appeals as justified also follows from the Final Opinion of MO34 EIA, according to which GLOBAL 2000 was present at the public hearing pursuant to Act no. 24/2006 Coll. on September 18, 2009.

61. Appeal no. 1 was submitted in English, resp. in the Czech language in some parts. Appeal no. 2 was a combination of the text in Slovak and English, while a substantial part of the text was in Slovak. ÚJD SR commissioned the elaboration of an officially certified translation of Appeal no. 1 into the Slovak language, which is available. ÚJD SR worked with both English and Slovak versions.

62. Following the acquittance with the opinion used by GLOBAL 2000 in its appeals on 11 June 2021 to 9 July 2021, the first-instance administrative authority did not find any reasons for agreeing with their contents, and therefore did not comply with the appeals made by GLOBAL 2000 itself pursuant to Section 57 par. 1 of the Administrative Procedure Code in withdrawal. For this reason, the first-instance authority submitted the contested decision together with the file documentation to the second-instance administrative authority, which according to Section 61(1 and 2) of the Administrative Procedure Code, is the head of the central state administration body, in this case the chairperson of ÚJD SR. As of 12 July 2021, the first-instance administrative authority prepared a submission report for the second-instance body for appeal to the decision of ÚJD SR no. 156/2021, where it stated disagreement with those views. In the submission report, it stated in detail the reasons for disagreement with the opinions stated in Appeal 1 and Appeal 2. On 12 July 2021, the first-instance administrative authority submitted the file to the second-instance administrative body competent pursuant to Section 58(2) of the Administrative Procedure Code, which according to Section 61(2) and Section 57(2) of the Administrative Procedure Code, is the Chairperson of ÚJD SR. The administrative authority of the first instance notified the parties to the proceedings of the

transmission of the file to the competent appellate body. The announcement was published on COENB, on the ÚJD SR Electronic Official Notice Board to be found on the website of ÚJD SR, and on the Official Notice Board of ÚJD SR at the entrance to the building of the ÚJD SR registered office at Bajkalská 27, 820 07 Bratislava. These publications were made under record number 4959/2021. Delivery was made by public decree, electronically and in writing to the embassies of the Slovak Republic in the surrounding countries for taking note.

### III.

63. In Appeal 1, GLOBAL 2000 objects that ÚJD SR in ÚJD SR Decision No. 156/2021 did not comment on several facts, specifically in the following areas.

64. **Drilling for seismic reinforcement of Units 3&4**

GLOBAL 2000 claims to have information from the former structural engineer of the project, who provided GLOBAL 2000 with photographs and detailed information expressing serious doubts about the execution of the drilling works under the seismic reinforcement program and about the documentation for it. These works were performed by ISKE. GLOBAL 2000 pointed to the opinion of ÚJD SR stated in the Decision No. 156/2021 on p. 61, point ad 4), where ÚJD SR stated that “.... it performed inspections of drilling works ...”. According to GLOBAL2000, that assertion “does not correspond with the statement of structural engineer, and the documentation at its disposal, nor with the assertion of MBL, which allegedly confirmed to GLOBAL 2000 that Solesi, S.p.A. from Syracuse / Sicily was not fully capable of acting in this area, as the work had to be repeated”<sup>6</sup>. In making this assertion, GLOBAL 2000 refers to a television report of RTVS.<sup>7</sup>

During the implementation of drilling works for the purpose of seismic reinforcement of equipment during walkdown inspections by ÚJD SR inspectors in 2011 found the facts that the representatives of ÚJD SR discussed with representatives of Slovenské elektrárne, a.s. on the spot and requested corrective and preventive action to be taken. In the given case, it was a cut reinforcing steel rebar without proper recording of the extent of the cut reinforcing steel rebar for the purposes of further assessment of the impact of such cut reinforcing steel rebar on the load-bearing structures. Until now, suppliers have only issued a statement / confirmation that the extent of the cut reinforcing steel rebar is less than 5%. Based on the above, corrective measures were ordered, which were subsequently fully implemented (immediate introduction of drilling protocols, scanning of reinforcement, or detection of contact with reinforcement with a small diameter drill, rules for shifting the anchoring plate, participation of structural engineer of author's supervision in dealing with cases of possible/actual cut reinforcing steel rebar, etc.). Relevant documents of the contractor quality system are available at ÚJD SR in Mochovce.

The drilling works performed by the ISKE contractor were strictly supervised by the EGP Invest. EGP Invest performed design and technical activities directly on the construction site during

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<sup>6</sup> *Global 2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (str. 2 ods. 1).*

<sup>7</sup> <https://www.rtvsk.sk/televizia/archiv/16952/248996#762>.

Note: link to published photos: <https://www.flickr.com/photos/global2000/50959474636/in/album-72157717066446637/>



the execution of works and at the same time provided construction supervision during the execution of drilling works.

Protocols documenting the execution of drilling works are part of the accompanying technical documentation. Subsequently, further inspections of ÚJD SR were carried out focused on the issue of documentation of drilling works and installation of anchoring elements. As part of the imposed corrective actions from the inspections, the selected anchoring elements were subjected to a destructive test, which confirmed compliance with the design requirements. The inspection was focused mainly on the deliverables of SOLESI, S.p.A. and MBL at Unit 4.

In 2020, ÚJD SR inspectors performed another inspection of protocols on drilling works made by SOLESI, S.p.A. and MBL. The inspection confirmed that SOLESI, S.p.A., who were responsible for documentation of the drilling works, have created a documented, implemented, maintained and audited by Slovenské elektrárne a.s., a quality management system, which is confirmed by the relevant protocols.

During the inspection of ÚJD SR, deficiencies were found in the protocols issued by SOLESI, S.p.A. However, shortcomings were found only in the protocols on input materials (grout - **pagel**, fasteners), which were not revised according to the rules for controlled documentation. However, from the sequence of placing these protocols in individual documentation packages, it was possible to evaluate the quality of the material used for a given purpose in a given period. ÚJD SR ordered the implementation of reasonable corrective measures. For individual protocols that are issued separately for each anchor (eg surveying, drilling, NDT - inspections and others) no deficiencies were found in the protocols.

ÚJD SR state that the documentation of drilling works was insufficient by the end of 2011. After the inspection of ÚJD SR inspectors in 2011, the elimination of these shortcomings was ordered and precise procedures of drilling activities were developed for individual contractors (from design – surveying, to submission of documentation on the relevant anchoring plate) and documentation of their quality. Anchoring plates that were completed by the end of 2011 and for which only a confirmation that no more than 5% of the reinforcement had a cut steel rebar, were issued were subjected to a conservative recalculation according to the Methodology for the assessment of load-bearing structures weakened by cut reinforcing steel rebar. ÚJD SR continuously inspected drilling works and installation of anchoring elements by inspections of onsite inspectors and, in addition, by special inspections in 2017, 2018 and 2020, in case of findings it imposed adequate corrective measures to eliminate deficiencies.

65. GLOBAL 2000 points out that “the author of the basic design prepared a detailed analysis in 2018 to address cases of potentially unreliable ISKE documentation”.<sup>8</sup> According to GLOBAL2000, it is not clear who is the author of the basic design, it considers that the Russian company Vniiaes, which allegedly is not the successor of the original designer and therefore does not own the original designs from the Soviet era.

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<sup>8</sup> *Global 2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (page 2).*

66. The author of the Basic Design is Energoprojekt Praha, ÚJV Řež, a. s., Na Žertvách 2247/29, 180 00 Praha 8 - Libeň. Energoprojekt Praha is a division of ÚJV Řež, Hlavní 130, Řež 250 68, Husinec. The methodology for the assessment of load-bearing structures weakened by a cut reinforcing steel rebar was developed by ÚJV Řež, Energoprojekt Praha division. Energoprojekt Praha provided author's supervision during drilling works. The opinion of the author of the basic design on the issue of structures weakened by the cut reinforcing steel rebar was prepared by ÚJV Řež, Division Energoprojekt Praha.

67. It is not clear to GLOBAL2000 on what basis UJD SR's engineering estimate is based on the assertion that, according to the above-mentioned analysis, the project "demonstrates static strength and seismic resistance of individual load-bearing structures, which could potentially be weakened by cut reinforcing steel rebar during ISKE work". It is also not clear to him "... what criteria have been set for the potential weakening of the load-bearing structure, for example whether a section of every tenth or every fifth or every third reinforcing steel rebar has been included in the calculation".<sup>9</sup> According to GLOBAL2000, this claim is unverified and cannot be accepted.

The author of the Basic Design (ÚJV Řež, division Energoprojekt Praha)<sup>10</sup> demonstrated the static strength and seismic resistance of individual load-bearing structures weakened by the cut of the reinforcing steel rebar in its document. This document is owned by Slovenské elektrárne, a.s. In no case can it be a kind of "engineering estimate"<sup>11</sup> as stated by GLOBAL2000. It is a very exact methodology and at the same time its application to specific cases of the cut reinforcing steel rebar, in which they are precisely defined:

- Theoretical / computational justification,
- Input data,
- Criteria, including for a conservative determination of the extent of the cut reinforcing steel rebar (if, for any reason, a protocol is missing which would specify the extent of the cut reinforcing steel rebar, or if the protocol is not available),
- Description of the use of the input data database,
- Evaluator's precise procedure, which depends on predetermined criteria.

The opinion of the author of the Basic Design on the issue of structures weakened by reinforcement in the implementation of new anchoring points is important for the determination of control mechanisms that should / would prevent the cut reinforcing steel rebar during drilling works and for the criteria of the methodology of evaluation of load-bearing structures weakened by a cut reinforcing steel rebar. The opinion states directly: *"When installing anchors, local weakening of reinforced concrete structures due to drilling of part of the concrete and steel reinforcement cannot be completely avoided. Drilled-out concrete is replaced by a high-strength grout, which has strength characteristics several times higher than the drilled concrete. Analyses show that most reinforced concrete structures show considerable reserves for loads under normal operating conditions, as well as for emergency effects and external extreme loads. Nevertheless, special attention was paid to the*

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<sup>9</sup> Global 2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (page 2(3)).

<sup>10</sup> Methodology of evaluation of load-bearing structures weakened by a cut reinforcing steel rebar, technical report

<sup>11</sup> Global 2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (page 2(3)).

installation of anchors in order to eliminate the possible effects of partial weakening of the elements of the supporting structure of the reactor building. A special methodology for the installation of additional anchors was developed, and the detection of the actual position of the load-bearing reinforcement was performed so that the boreholes were placed outside the bars of the main load-bearing reinforcement. Documentation was kept on all drills with a record of the places where the steel reinforcement was cut. A detailed methodology for the subsequent assessment of structures weakened by cut reinforcing steel rebar was developed. Finally, control recalculations of the elements of the supporting structure were performed, where there was a local weakening “*Chyba! Záložka nie je definovaná.*” These are local weakness points due to cut reinforcing steel rebar.

The author of the Basic Design further states: “*In normal cases, it is possible to consider acceptable a **weakening of the cross-section of the structure by 5%.** Such a weakening of the cross-section of the structure can be understood as the use of part of the assumed reserves in the load-bearing capacity of the structure. These reserves are given by the conservative approach to the design of all structures in the field of nuclear energy and are required by the relevant regulations of the Slovak Republic. One of the reasons for considering these reserves in the design of structures is the small local interventions in the structure, which are difficult to specify in advance, caused, for example, by requirements for additional anchoring of technological equipment.*”

The control mechanisms that were / are to prevent the cut reinforcing steel rebar, were also adapted to this statement of the author of the Basic Design. These control mechanisms are part of the documentation of the quality management system of Slovenské elektrárne, a.s., have been developed by individual contractors of drilling works and are binding for them. As these procedures are not the subject of the GLOBAL2000 appeal, ÚJD SR only present them briefly:

- Precise alignment of the borehole with regard to the existing reinforcement drawings so as not to cause a cut reinforcing steel rebar,
- Scanning the reinforcement (if the anchor was mounted on a load-bearing element without a steel girder) or performing inspection boreholes of small diameter to prove that the surveyed boreholes would not damage the reinforcement,
- If the possibility of cutting reinforcing steel rebar according to the previous point was found by inspections - a structural engineer was called to the drill, who decided on the next step (eg relocation of the drill). The permitted relocation of the borehole was only 50 mm, with a major relocation an EFD Notification was issued (if necessary, a new strength recalculation of the relocated anchor was performed),
  - a drilling report was drawn up for each anchor plate after drilling the holes, containing the following information:
    - who did the drilling and when,
    - number of holes, their configuration, depth and diameter of holes,
    - the direction and magnitude of the relocation of the anchor (if it was necessary to relocate the anchor due to a possible collision with the reinforcement),
    - an indication of whether the reinforcement has been drilled-through and, if so, with a precise specification of the extent of the damage.

The “Methodology for the assessment of structures weakened by cutting reinforcing steel rebar” as such, technical report contains the following chapters:

- Input data (links to applied standards and source documentation, information about the used SW and seismic categorization of the object),
- Manual for working with the document:

- Flow chart of the drilling process,
- The opinion of the author of the Basic Design (quoted in detail above),
- Information on the database of the damaged reinforcement,
- A detailed overview of the input data for the calculation of structures weakened by cut reinforcing steel rebars,
- Examples of computational evaluation of structures weakened by cut reinforcing steel rebar.
- Methodology for the assessment of structures weakened by cut reinforcing steel rebars,
- Conclusion.

Cut reinforcing steel rebars database:

contains all concrete structures for which a cut of reinforcing steel rebar is suspected or confirmed. The exhibits submitted and compliance with the defined requirements were reviewed by ÚJD SR and their supporting technical organization statika.sk s.r.o. On 9 July 2021, the inspectors of ÚJD SR performed the inspection of previously retained drilling protocols of MBL.

- The documentation which was previously retained by MBL in the scope for the unit 3 was submitted by representatives Slovenské elektrárne, a.s. to the inspectors of ÚJD SR. The documentation included drilling protocols to the 120 drills the documentation of which was subject to the retention right applied by MBL.

The inspectors of ÚJD SR evaluated statuses of MBL's protocols submitted and compared them to the copies submitted by Slovenské elektrárne, a. s. that were at their disposal from the previous inspections. The copies were enclosed with the statements of Solesi, S.p.A. confirming that copies were concerned there and that Solesi, S.p.A. did not possess the original copies since they were retained by MBL within the application of the retention right. Based on the comparisons performed and other characteristics of the MBL's drilling protocols submitted, ÚJD SR understand that the MBL's protocols submitted are original copies.

Despite the said fact, all the said 120 drills have been included in the conservative recalculation of framework structures weakened by interrupted reinforcements in accordance with the Methodology for the assessment of structures weakened by cut reinforcing steel rebars.

Conservative assessment of the extent of cut reinforcing steel rebars is based on determination of the maximum theoretically possible extent of cut reinforcing steel rebars at the given configuration of drilling holes and allocation of reinforcing steel rebars.

The individual cuts of reinforcing steel rebars were evaluated on the basis of the dimensions of the structure, its strength, the point of cut, the diameter and number of the damaged reinforcing steel rebars and the total weakening.

Every element was evaluated and assigned a status upon which the damages to/interruptions of reinforcing steel rebars (lower load capacity) were classified as acceptable/non-acceptable.

In compliance with the Methodology for the assessment of structures weakened by cut reinforcing steel rebars, a percentage share of the interrupted reinforcing steel rebar cross-section to the total reinforcing steel rebar cross-section was defined for each relevant load-bearing element. Such percentage share included all registered events of interruption of reinforcing steel rebars as well

as a conservative estimation of the reinforcing steel rebar interruption (e.g., for 120 drills with the previously retained MBL's protocols). In accordance with the result of such calculation, the assessment of the given part of the structure was performed at a certain scope of the reinforcing steel rebar interruption (more than 5% in compliance with the opinion of the author of the basic design).

- If the cut/damage of the reinforcing steel rebar is slightly above 5% (approx. 5-10%), the weakening of the load-bearing structure was assessed by non-computational methods by an authorized structural engineer. Based on the method of strengthening and dimensions, static action of the elements of the load-bearing structure, the structural engineer could evaluate such an interruption as acceptable. This procedure of non-computational evaluation is supported by the experience and results of the computational assessment of load-bearing structures even with a significantly greater weakening of the reinforcement. The results of the computational assessment of a significant number of structures show that the real reserve for the assessed structures significantly exceeds 30%.
- If the cut of the load-bearing reinforcing steel rebar is more than 10% of the cross-section
- part of the structure was assessed by calculation. Only the direction in which the reinforcing steel rebar was cut (vertical, horizontal, transverse or longitudinal) was always considered at the calculation.).

Each assessment with a weakening of more than 5% is evaluated separately in writing.

ÚJD SR does not agree with the above-mentioned opinion of GLOBAL 2000, according to which the static strength of load-bearing structures weakened by the cut reinforcing steel rebar is only a kind of "engineering estimate". On the contrary, it is a very qualified assessment by an authorized structural engineer, resp. using static calculation by a qualified calculation code with the following attributes:

- using all input data on the structure and load of the given load-bearing element,
- with a conservative approach to the assessment of cut reinforcing steel rebars,
- according to a predetermined conservative methodology and predetermined conservative criteria,
- duly substantiated in writing.

*68. GLOBAL 2000 points to the fact that "in 2021 ÚJD SR requested a re-assessment of the ISKE documentation in question, and the related supplementation of the analysis of the resistance of load-bearing structures for all cases in which failure cannot be ruled out with absolute certainty". GLOBAL 2000 argues that "the parameters of the" extended analysis "of the designer were not set in this reassessment and the" correctness of the methodology "confirmed by the" independent professional organization "should be taken as a fact despite the lack of information on the assumptions and criteria for this assessment".<sup>12</sup>*

In 2021, ÚJD SR ordered a re-evaluation of ISKE documentation on the drilled holes and supplementing the analysis according to the Methodology for the assessment of structures weakened by cut reinforcing steel rebars with all cases, in which it is not possible to rule out a cut reinforcing steel rebar with absolute certainty. At the same time, it was ordered by ÚJD SR to revise the Methodology for the assessment of structures weakened by cut reinforcing steel rebars as follows:

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<sup>12)</sup> Global 2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (page 2(5)).

- Add to the Methodology for the assessment of load-bearing structures weakened by the cut reinforcing steel rebar, the exact description of the used database of input data and the method of using (extracting) the necessary data from it. The purpose of this requirement was that each independent evaluator could, independently of the one who processed it, verify the accuracy of the input data used for the evaluation and find them directly in the database.
- Add to the Methodology for the assessment of structures weakened by the cut reinforcing steel rebars an explicit requirement that in each performed evaluation all necessary input data for the evaluation be stated and not only a reference to the database. The purpose of this requirement was that each independent evaluator could, independently of the one who processed it, verify the accuracy of the input data used for the evaluation and compare them with the database.
- Furthermore, ÚJD SR ordered to extend the evaluation area according to the Methodology for the assessment of structures weakened by the cut reinforcing steel rebars by those ISKE drills to which the drilling protocol was not issued, but was only a general statement of the structural engineer ISKE that no more than 5% of the reinforcing steel rebars have been cut for the given load-bearing element. ÚJD SR took this step on the basis of findings obtained during inspection in 2020. Based on the request of ÚJD SR in the first half of 2021, the specialists of Slovenské elektrárne, a.s. identified an anchoring plate at Unit 4, the photo of which was attached by GLOBAL 2000 to the draft Decision on issuing a permit for commissioning MO34 Unit 3 published by ÚJD SR. Due to the fact that the anchoring plate in question was not used, it was dismantled and the condition of the reinforcement under it was examined - one of the reinforcement bars was partially cut (not in the whole cross-section). The anchoring plate was identified as a delivery of ISKE from the period before the end of 2011, it did not have any drilling protocol, only an additional statement by ISKE that no more than 5% of the reinforcement had been cut for a given load-bearing element. After recalculating the available data, this ISKE statement proved to be true (the real extent of cut reinforcing steel rebar for the given load-bearing element was less than 5%). As such a state of declaring the extent of damaged reinforcement does not allow accurate recalculation of weakening of load-bearing structures (eg possible use of conservative estimate of extent of used reinforcement), ÚJD SR ordered all such ISKE anchoring plates to be included among the conservatively evaluated plates according to the Methodology for the assessment of load-bearing structures weakened by a cut reinforcing steel rebar.
- Slovenské elektrárne, a.s. experts reviewed the drilling protocols of ISKE and all boreholes for which only an ISKE statement was available stating that no more than 5% of the reinforcement had been cut for a given load-bearing element. All these drills were included in the database of cut reinforcing steel rebars with a conservative estimate of the extent of cut reinforcing steel rebars.
- - On the basis of this addition to the list of cut reinforcing steel rebar, an evaluation of the affected load-bearing elements was performed conservatively in accordance with the Methodology for the assessment of load-bearing structures weakened by interruption of reinforcement.

ÚJD SR evaluated the document Methodology of Assessment of the Structures Weakened by Interrupted Reinforcements, technical report amended alike including its annexes containing the assessment of particular framework structures weakened by damaged/interrupted reinforcements. The independent evaluation of the document for the needs of ÚJD SR was performed by the company skilled in the field of structures made of reinforced concrete that participated on the projects of seismic reinforcement of the power plant in Jaslovské Bohunice. The Methodology for the assessment of structures weakened by cut reinforcing steel rebars, technical report as such was evaluated in the

entire scope, annexes containing evaluations of particular load-bearing structures weakened by cut/damaged reinforcing steel rebars were selected randomly for the purposes of evaluation.

It is possible to state that cases of interruption of reinforcement, resp. conservative approach to the weakening of structures, where it is not possible to determine the exact extent of the actual cut reinforcing steel rebar (eg due to missing drilling protocols, or retained original protocols by MBL until their issuance) are solved by statics calculation / evaluation for Unit 3 Mochovce in compliance with the Methodology for the assessment of structures weakened by cut reinforcing steel rebars, technical report. As confirmed by statika.sk, s.r.o., all evaluated load-bearing elements comply.

ÚJD SR stated the reasons for supplementing the Methodology for the assessment of load-bearing structures weakened by cut reinforcing steel rebars to clarify GLOBAL2000 claims.

69. GLOBAL2000 argues that the verification of "... leak tests and pressurization to 150 kPa against the atmosphere is not sufficient for the WWER 440/213 accident scenario when the main circulation pipe breaks and providing steam flow in the hermetic chambers, as the calculations mentioned in the IAEA framework document show that, depending on the accompanying conditions, the Basic Design parameters of the hermetic zone pressure and temperature (245 kPa, 127 °C) were reached, and could be slightly exceeded in the Design Basis Accident (500 DN mains rupture) under several accompanying conditions."

ÚJD SR in their Decision no. 156/2021 presented the results of an overpressure test of hermetic spaces with an overpressure against atmospheric pressure of 150 kPa (endurance 2h 10min.), Which corresponds to an absolute pressure of about 250 kPa only as one of the examples, which demonstrates sufficient strength of **some** load-bearing structures of the main generating unit between 16 and 23 March 2019 according to the approved program. Detailed results from measurements during integral tightness and strength test of hermetic spaces - ISTaP were evaluated in the final report. During the integral tightness and strength test of hermetic spaces (ISTaP), leakage from hermetic spaces was recalculated 1.07% / 24 hours at a pressure of 150 kPa. (overpressure against the atmosphere, i.e. 250 kPa abs.) Tensometric measurements were performed, which confirmed the high strength and durability of the construction of hermetic spaces.

In the overpressure test of hermetic spaces, only the elements of the outer boundary of the hermetic spaces are loaded with an overpressure of 150 kPa, not all main production unit (HVB) load-bearing structures. This fact was fully taken into account by the first-instance administrative body when formulating the given part of ÚJD SR Decision no. 156/2021. Successful overpressure testing of the hermetic spaces of Unit 3 is a necessary, but not a sufficient condition for proving the integrity of all load-bearing structures of the main production unit.

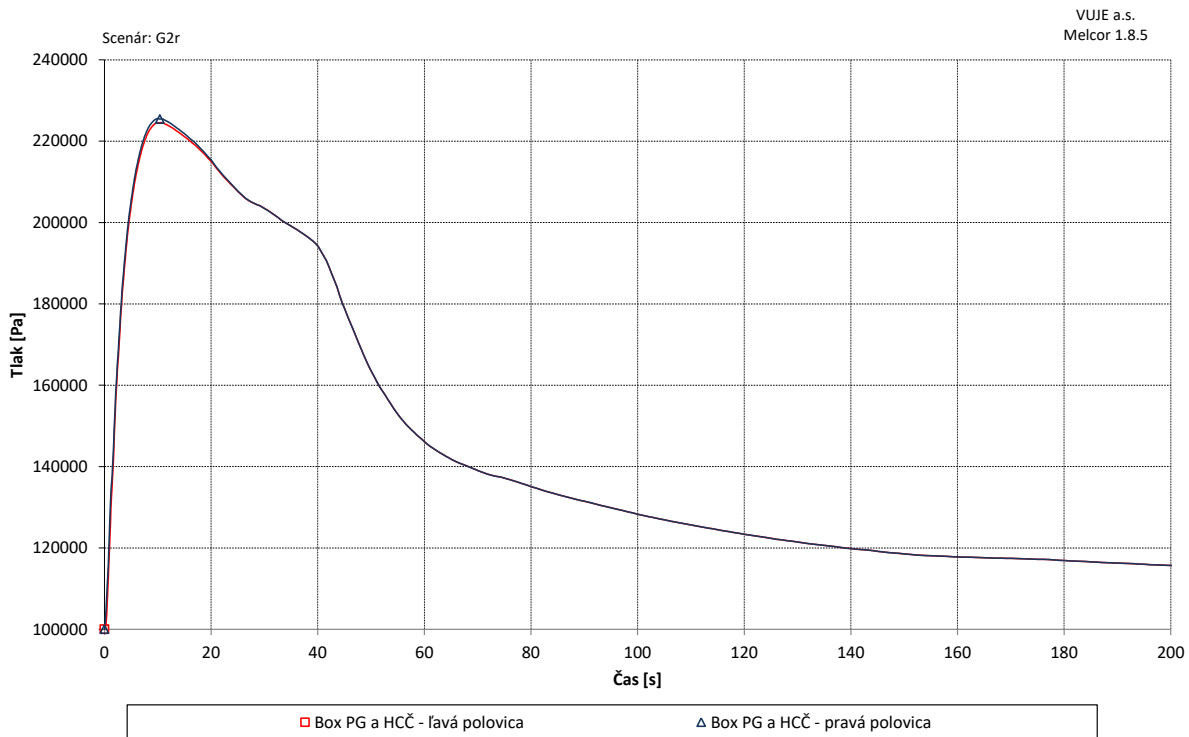
70. ÚJD SR published on its website the Pre-operational Safety Report of MO3&4 (chapter 13 of MO34 POSAR)<sup>13</sup> as part of the documentation for the decision on the application of Slovenské elektrárne, a.s. to issue a permit for the commissioning of Unit 3 of MO3&4 and related permits. Part of the published PSR of MO3&4 is subchapter 07.02.01.11 Thermohydraulic response of containment to Design Basis Accidents. This subchapter of PSR of MO3&4 directly discusses the parameters in the hermetic zone during the maximum Design Basis Accident and provides a reference

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<sup>13</sup> Link: <https://www.ujd.gov.sk/mo-34-podklady-pre-rozhodnutie-3-blok/>  
<https://www.ujd.gov.sk/basis-for-the-decision-for-unit-3/?lang=en>

to the input data, a conservative approach to the calculation and a large number of graphical waveforms in the hermetic zone.

The maximum value of the pressure in the containment (in absolute pressure values, Pa) in the transition process after a given LOCA is about 230,000 Pa (230 kPa, see Fig. 7.2.1.11-G2r-4: Pressure in SG box - left and right half - detail). A reference to a part of the Pre-Operational Safety Report is stated here.<sup>14</sup>



The final evaluation of the parameters in the containment is given on p.14/24, sub-chapter 07.02.01.11 PSR of MO34:

*“The course of the process triggered by the initiation event ‘Primary circuit pipe rupture’ considering reasonably conservative initial conditions and settings of protection and control devices, is safely manageable. Acceptance criteria for a given category of processes will not be violated during this process, subject to the assumptions made...The submitted safety analyses performed in accordance with the recommended requirements and methodologies are the basis for the following conclusion: “The physical and technological properties of the MO3&4 units meet the required nuclear safety conditions. In the event of the initiating event of the primary circuit pipeline rupture, which is included in the category of design basis accidents, there will be no breach of the acceptance criteria set for the given category of processes.”*

We state that the results of the overpressure test of hermetic spaces with an overpressure against atmospheric pressure of 150 kPa are only one of the evidence that demonstrates sufficient strength of a part of the load-bearing structures of the main production unit. During the overpressure test of hermetic spaces, only the elements of the outer boundary of the hermetic spaces are loaded

<sup>14</sup> [https://www.ujd.gov.sk/wp-content/uploads/2020/11/Kapitola\\_07.02.01.11.pdf](https://www.ujd.gov.sk/wp-content/uploads/2020/11/Kapitola_07.02.01.11.pdf)



with an overpressure of 150 kPa, not all HVB load-bearing structures. The successful course of the performed overpressure test of the hermetic spaces of Unit 3 is a necessary, but not a sufficient condition for proving the integrity of all load-bearing structures of the main production unit. At the same time, the first-instance administrative body states for explanation that there was probably a misunderstanding in the GLOBAL2000 statement, because the calculated values of the highest pressure during LOCA are given in absolute pressure values (approx. 230 kPa) and the pressure in the hermetic zone against atmosphere (150 kPa), which corresponds to an absolute pressure of about 250 kPa. This is fully consistent with the calculated maximum containment parameters during LOCA 2x500 mm.

The reference to the footnote No. 6 in the Appeal No. 1 is not considered by ÚJD SR a material relevant for issuing a decision. This material titled "Safety issues for Mochovce 3&4" prepared by Greenpeace is obsolete since it had been issued in 2007, i.e., many years before the Decision No. 156/2021 was issued by ÚJD SR. When issuing decisions and permits, ÚJD SR rely on the up-to-date, reliably identified, and verified conditions. If an up-to-date version of the material is available, ÚJD SR would be open to addressing the issues relating to the safety of the MO3 nuclear installation provided that such issues are subject to relevant arguments based on the appeal proceedings. However, ÚJD SR do not think the 14-year-old material meets such conditions.

ÚJD SR rejects GLOBAL2000 statement on inadequacy of access - comparison of parameters of hermetic zone overpressure test with parameters calculated in PSR of MO3&4 for LOCA 2x500 mm.

71. GLOBAL2000 states on summarizing the issue of drilling protocols that ÚJD SR should provide:

- a) assumptions, on which the engineering estimate is based,
- b) criteria that have been established for the potential weakening of the load-bearing structure, and
- c) the calculations should be made public in order to assess their consistency.

ÚJD SR strongly rejects the statement made by GLOBAL2000 on a kind of "engineering estimate".

A very exact methodology elaborated by statika.sk, s.r.o as well as its application to specific events of reinforcement interruptions are concerned here; the methodology exactly defines:

- theoretical/calculation explanation,
- input data,
- criteria for, including but not limited to, conservative definition of the scope of reinforcement interruption (if, due to any reason, the protocol in which the scope of reinforcement interruption is exactly defined is missing or unavailable),
- description of the use of the database of input data,

exactly defined steps of the evaluator depending on the criteria defined in advance.

These criteria are exactly specified in the previous text hereof.

Calculations performed in accordance with the Methodology for the assessment of structures weakened by cut reinforcing steel rebars are owned by Slovenské elektrárne, a.s. They were at the disposal of the inspectors of ÚJD SR and experts of the external support of ÚJD SR in the given field in the premises of the Mochovce power plant. They are not at the disposal of ÚJD SR, so ÚJD SR cannot disclose them.

Based on the aforementioned reasons and material argumentation, Chairperson of ÚJD SR does not agree with the statements of Global 2000 regarding the insufficient approach to the field of evaluation of the load-bearing structures weakened by cut reinforcing steel rebars.

72. Issues related to the crash of a transport aircraft, the effects on climate change

a) GLOBAL2000 quotes from p. 61 of the ÚJD SR Decision no. 156/2021: *“The answers of ÚJD SR to the statement by GLOBAL2000 are given in points Ad c), Ad d.1), Ad d.2, ad e), Ad f), Ad g), Ad h.1 to h.5 , Ad h.6, Ad i) and Ad j) of ÚJD SR's response to GLOBAL2000's statement on the draft Decision, which was published on 15 February 2020.”* Of this, GLOBAL2000 considers that *“no further information is provided “.*

ÚJD SR does not agree with the statement GLOBAL 2000, according to which “no further information is provided.” The required answers are given on pages 47 to 52 of the ÚJD SR Decision no. 156/2021. GLOBAL 2000 in its statement on the draft decision of 15 April 2020 (letter no. 2608/2020) and in the statement of GLOBAL2000 on the draft Decision of 23 February 2021, which was registered under reg. no. 1308/2021, were partly identical, and therefore ÚJD SR used the form of a reference to that part of the reasoning of the decision, where the relevant answers are given.

b) In the ÚJD SR Decision no. 156/2021 parts Ad d.2, Ad e), on p. 49 ÚJD SR stated that in the event of a threat to the power plant by a commercial aircraft, according to § 12 par. 1 e) of Act no. 575/2001 Coll. within the competence of the Ministry of Defence of the SR, quote “ensuring the inviolability of the airspace of the Slovak Republic”. Other activities of the armed forces related to the issue of airspace violation are listed in § 4 of Act no. 321/2002 Coll., which means that the army will take steps to protect the Slovak airspace and the nuclear power plant. This statement appears to GLOBAL2000 to be insufficient and considers that the scenario of a large aircraft crash at MO3 is not resolved.

ÚJD SR cannot provide GLOBAL2000 with classified information on securing the defence of the Slovak airspace. This information is subject to a classified regime in accordance with Act no. 215/2004 Coll.

Due to aforementioned reasons, Chairperson of ÚJD SR does not agree with argumentation of Global 2000.

73. GLOBAL 2000 refers to the reasoning in Decision of ÚJD SR No. 266/2008, in which it is stated that “Modifications to safety related equipment affecting nuclear safety have been decided by the applicant on the basis of changed legislative requirements in force at the time of the planned completion of Units 3&4 of the Mochovce Nuclear Power Plant“. This wording is also part of Condition no. 1 of the Final Opinion of MO34 EIA. GLOBAL2000 requests to reinforce the construction of the Mochovce unit in question so that it can withstand the impact of such types of aircraft that now fly over the nuclear power plant. If this is not technically possible - do not issue commissioning permits because they do not consider the Unit ready for commissioning. That text is in the preamble to Decision No 266/2008, and as such explains the correct reasoning of ÚJD SR, by which ÚJD SR justifies why the Decision no. 266/2008 was issued. In the operative part of Decision no. 266/2008 explicitly states that ÚJD SR:

“...issues authorisation for Slovenské elektrárne, a. s., ID No.: 35 829 052, with its registered office in Bratislava, Hraničná 12, 827 36 Bratislava 212, Plant Units 3&4 of Mochovce NPP, 935 39

Mochovce (hereinafter only as the “Applicant”), bank details: Tatra banka Bratislava, Account No. 2646000025/1100, for the implementation of modifications to safety related facilities affecting nuclear safety at the nuclear installation of Units 3 and 4 of the Mochovce NPP during construction to the extent specified in the following parts of the basic design documentation: “... and the following is a list of changed Basic Design documentation.

ÚJD SR considers that the text of the justification can be applied only to modifications made in the Basic Design, for which it issued its approval by Decision no. 266/2008, in accordance with the wording of the operative part of Decision no. 266/2008. Slovenské elektrárne, a.s., actually undertook to make "Modifications to safety related facilities affecting nuclear safety ... based on changed legislative requirements valid at the time of the planned completion of Units 3&4 of the Mochovce Nuclear Power Plant" but this statement applies to the scope of changes in BD, which were approved by the Decision no. 266/2008. It cannot be applied as a general obligation valid during the entire construction completion of Units 3&4 of the Mochovce power plant. However, Slovenské elektrárne, a.s., implemented modifications to the Basic Design, which were approved by ÚJD SR in order to increase the safety of future operation of Units 3&4 (eg supplement to the BD, which implemented additional measures as a result of Stress Tests after the Fukushima NPP accident in 2011). Continuous verification of the compliance of the state of nuclear safety of Units 3&4 of Mochovce is part of the process of periodical comprehensive safety review, which is introduced by the Atomic Act and Decree no. 33/2012, as amended.

In addition, in points no. 3.1 and 3.4 of the Final Opinion of MO34 EIA it is stated as follows (p. 71):

“3.1. After granting a permit for commissioning of a nuclear installation, ensure compliance with all conditions specified in ÚJD SR Decisions nos. 246/2008, no. 266/2008 and no. 267/2008, after issuing the ÚJD SR permit for commissioning and operation of MO 3&4 to ensure compliance with all conditions specified in the relevant ÚJD SR permits.”

“3.4. Implement, in cooperation with the supervisory authorities, the recommendations set out in the Opinion of the Commission of the European Communities pursuant to Art. 43 of the Euratom Treaty [K(2008)3560 of 15 July 2008]. To this end, the Commission recommends that the investor, in close cooperation with the national authorities:

- in line with international best practice, develop a reference scenario involving a deterministic effect from an external source (eg a small aircraft crash),
- on this basis, within the design basis of the proposed investment, evaluate and apply appropriate additional elements, functional potential and management strategies to withstand possible deterministic effects from an external source (eg collision of a small aircraft with malicious intent), so as to bring the project into in line with existing best practice.”

The issue of the aircraft crash on the nuclear installations of Units 3&4 of Mochovce can be divided into 3 areas:

a) Small aircraft impact

Slovenské elektrárne, a.s., implemented technical measures against an external event (small aircraft impact) in accordance with the requirements of the Final Opinion (Final Opinion, document No: 395/2010 - 3.4 / hp of 28 April 2010). These technical measures are supplemented by a precisely defined activity of the emergency response organization in Mochovce in the area of protection. This fact is stated in the ÚJD SR Decision no. 156/2021 on p. 24 and 25 as follows: “Slovenské elektrárne,

a.s., submitted the relevant documents to ÚJD SR, the contents of which are classified. ÚJD SR issued Decision no. 290/2010 of 16 August 2010, which permitted the construction of protective barriers. The related documentation is subject to the confidentiality regime according to Act no. 215/2004 Coll., For this reason was not made available to the public. ÚJD SR considers conditions no. 1 and 2 of Decision no. 266/2008 as fulfilled.“

It can be added to the above statement that before the construction of protective barriers, various possibilities of the impact of a small aircraft on the MO3&4 civil structures were analysed and, based on their evaluation, a later implemented technical design was adopted.

b) Accidental impact of an aircraft, including large commercial airliner

In POSAR of MO3 & 4, which ÚJD SR published on its website, in chapter 04.02 (Risk assessment of specific external events) on p. 14 and 15, contains the following text: The general approach to the evaluation of internal and external events in the MO34 nuclear installation project is based on the following principles:

It is demonstrated that the probability of a risk event is less than established in the probability criterion of limited impact. If the calculated frequency of risk induced by the occurrence of internal, resp. external event is less than  $1.0 \times 10^{-7}$  / year, then this risk is considered acceptable and no additional measures in the MO34 Project to limit it are necessary.

The assessment of the risk of an aircraft crashing on a NPP object was evaluated by applying the internationally accepted approaches SDV (i.e., method of safe distance limit value) and SPL (i.e., method of safe probability limit value). Analyses performed according to the methodology of the IAEA Safety Guide<sup>15</sup> and the results of assessments of the aircraft crash as a consequence of the operation of the surrounding airports and activities related to their operation, listed in PSR Chapter 7.2.3.2 Safety Analyses for External Events, did not show any threat to the Mochovce NPP. This is an analysis of PNM34069033. The SPL approach was applied to assess the risk of an aircraft crash as a result of general air traffic in the region.

The total annual frequency of an aircraft crash on a reference object MO34 nuclear installation due to general air traffic is  $3.58 \times 10^{-8}$  / year; out of which frequency of a civilian aircraft crash is  $4.87 \times 10^{-9}$  / year only. Possible threat to the site by sports and recreational flights and farming flights is addressed by the envelope due to the threat by small aircraft - technical and organizational measures. The aggregate annual frequency of occurrence of the event is less than the exclusion value of SPL  $1.0 \times 10^{-7}$  year<sup>-1</sup> recommended by international practice, e.g. IAEA documents.<sup>16</sup> Based on the conclusions given in chap. 7.2.3.2.1 PSR of MO3&4 and based on the performed analyses it can be stated that from the point of view of international methodologies criteria, the current assessment of air traffic in the vicinity of Mochovce and MO34 design solutions, the risk of endangering nuclear safety at the MO34 nuclear installation due to aircraft crash is negligible (very low) and no additional technical or organizational measures are required.

ÚJD SR verified background documents for the analysis of the probability of a large civil aircraft crashing as a result of air traffic on EMO facilities and checked the results thereof. ÚJD SR requested by letter current data on the number of flights within a radius of 50 km from MO3&4 and Air traffic

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<sup>15</sup> Safety Guide No. NS-G-3.1, IAEA Safety Standard Series - External Human Induced Events in Site Evaluation for NPPs, 2002

<sup>16</sup> IAEA-TECDOC-1341 - Extreme External Events in the Design and Assessment of Nuclear Power Plants, 2003

control of the SR provided these data to ÚJD SR. Based on them (after extrapolation of trends for the future period and exclusion of a decrease in the frequency of flights during the COVID pandemic from the extrapolation), the relevant probabilities were calculated using an internationally recognized methodology. The results submitted by Slovenské elektrárne, a.s. were confirmed thereby.

**c) Addressing situations in the event of other threat to NI by an aircraft:**

The possible diversion of a transport aircraft from the flight path over the territory of the Slovak Republic is handled by the procedures specified in the justification of the ÚJD SR Decision no. 156/2021: According to § 12 par. 1 e) of Act no. 575/2001 Coll. within the competence of the Ministry of Defence of the SR, quote: "ensuring the inviolability of the airspace of the Slovak Republic". Other activities of the armed forces related to the airspace violation are listed in § 4 of Act no. 321/2002 Coll.

External threat from aircraft crash on MO3&4 nuclear installation is addressed for small aircraft crash in accordance with point 3.4 of the MoEnv's Final Opinion on the EIA Process for MO3&4 (Final Opinion, doc No: 395/2010 - 3.4 / hp of 28 April 2010) by technical measures and procedures of operating personnel, for the accidental crash of other aircraft - by proving a negligible probability of such an event and for other threats to the nuclear facility by aircraft – by operation of the Armed Forces of the Slovak Republic. This is in full compliance with Annex 3 part B (II) section E par. 2 b of Decree no. 430/2011, as amended. ÚJD SR does not agree with the statement of GLOBAL 2000 in relation to the threat to Unit 3 of the MO3&4 by an impact of an aircraft. MO3&4 Units are protected against the impact of a small aircraft beyond the requirements of IAEA Safety Standards. In addition, no international standards require the adoption of special technical or organizational measures to ensure the resilience of NPPs from the impact of a large commercial aircraft, with a low (SPL) probability occurrence.

Based on the aforementioned reasons and material argumentation, Chairperson of ÚJD SR does not agree with argumentation of Global 2000.

**74. Water temperature in the Hron River**

GLOBAL2000 state that in their opinions of 2018 and then of 2020 to the draft Decision No. 156/2020 that they introduced the problem of a missing scenario in relation to the water temperature in the Hron river in accordance with EIA's conclusions as well as the problem that the data were provided until 1982 only instead of a forecast for at least 60 coming years. It is the opinion of Global 2000 that ÚJD SR failed again to answer this question in the paragraph "Ad 5" on page 61, or also in the section "Ad g" on page 49 of the Decision 156/2021, because this part concerns the reduced, "relatively low" consumption of cooling water, which does not answer this question. GLOBAL2000 states that "... ÚJD clearly has no answer to the question asked. The operation of the nuclear power plant is planned for 60 years, i.e. for a period of up to 100 years from the data provided in a significantly changing climate without providing any scenarios, which is contrary to the EIA conditions."<sup>17</sup>

With regard to the aforementioned opinion of Global 2000, it has been stated by ÚJD SR as follows: From the aspect of compliance with their safety function, make-up of water in the cooling circuits may also be provided from reserve resources. For this purpose, the Mochovce nuclear

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<sup>17)</sup> Global 2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (page 4 (4)).

installation has defined procedures tested in the Mochovce site as a part of stress tests after the accident in the Fukushima nuclear power plant. The planned lifetime according to the basic design of the MO34 nuclear installation is 40 years as opposed to the Global 2000's statements. From the aspect of prognoses of climatic changes and their impacts on the future operation of the Mochovce NPP, ÚJD SR refers to a valuable monograph **Hydrologické sucho na Slovensku a prognóza jeho vývoja (Hydrological Drought in Slovakia and Prognosis of Its Development)**, (hereinafter referred to as "Monograph"), ISBN 978-80-223-4510-1, in which predictions of Slovak rivers including the Hron river in the horizon up to 2100 are presented on the basis of the current scientific knowledge.

The team of authors of the monograph is from Comenius University in Bratislava, SHMÚ, SAV, and the researchers of the University of BOKU in Vienna also took part in the research.

The authors also evaluate the impact of drought on the water capacity of the following streams: Myjava, Váh, Kysuca, Nitra, Hron (Brehy station, river kilometre 93.9), Ipeľ, Torysa, Rimava, Topľa, Poprad, and give a brief description of their catchment area.

The information provided in the monograph show that international standards recommended by the International Meteorological Organization (WMO) and internationally accepted methodologies were used to assess the current situation and forecast developments. Measurements confirm that the forecasted climate change scenarios in Slovakia represent real alternatives to climate development in Slovakia.

The monograph is intended for both professional and lay public and is publicly accessible at the SHMÚ website: <http://www.shmu.sk/sk/?page=2049&id=922>. It confirms that in Slovakia we are dealing with the issue of climate change and hydrological drought and their forecasts.

ÚJD SR state that the results of the forecasts of the monograph correspond with the data stated in the NPP safety documentation (MO34 POSAR, Chapter 4 Hydrology and its sub-chapters Surface waters and Extremes – drought).

Due to the above evaluation, content, renowned authors team, we will use references to this monograph and MO34 POSAR in further responses to GLOBAL2000 statements.

In the given part of the appeal, ÚJD SR states the following facts on the statement by GLOBAL2000:

ÚJD SR published on its website the document of Slovenské elektrárne, a.s. "Evaluation of the method of fulfilling the recommended conditions of the MoEnv of SR, stated in the Final Opinion no. 395 / 2010-3.4 / HP "18). This document was published as part of the documentation for the decision on the application of Slovenské elektrárne, a.s., for a permit for the commissioning of Unit 3 of Mochovce and related permits.

For make-up water to the cooling circuit of cooling towers MO3&4, the make-up water temperature condition is not relevant due to the low ratio of make-up water flow and cooling circuit water flow.

The Method of Fulfilling the Recommended Conditions of the Ministry of the Environment of the SR is stated in the document Evaluation of the Method of Fulfilling the Recommended Conditions of the Ministry of the Environment of the SR stated in the Final Opinion of MO34 EIA.<sup>19</sup>

Emergency procedure:

Internal procedures are established in the event of emergencies, which address the effective response even in the event of loss of raw water supply through the Emergency Regulation - Loss of raw water supply. The effectiveness of these procedures has been tested several times at EMO NPP

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<sup>18</sup> <https://www.ujd.gov.sk/mo-34-podklady-pre-rozhodnutie-v-konaniach-pre-3-a-4-blok/>

<sup>19</sup> [https://www.ujd.gov.sk/wp-content/uploads/2021/09/odpocet\\_plnenia\\_zaverecneho\\_stanoviska\\_EIA.pdf](https://www.ujd.gov.sk/wp-content/uploads/2021/09/odpocet_plnenia_zaverecneho_stanoviska_EIA.pdf)

The monograph<sup>20</sup> contains data on changes in the flow of the Hron river, which are calculated for a period 2069 – 2100. According to the graph on p. 179 of the monograph, there may be a decrease in the runoff in the summer months (July, August) compared to the current values (in the chart 1981 - 2012). In such cases, the limitation of consumption for the Mochovce nuclear installation is not excluded, even at the cost of reducing the output (shutdown) of the unit (s). However, the summer period, as a standard, is used for scheduled outages of refuelling and units general overhaul.

From the available data it is possible to deduce that in the Slovak Republic there are qualified estimates of the impacts of hydrological drought on the flow of the river Hron. Given the expected decrease in the flow through the Hron river in the summer months (the calculation is for the period 2069 - 2100), it is possible that it will be necessary to reduce the capacity of the units in order to comply with the permitted consumption from the Hron river and maintain favourable conditions in Hron river in terms of environmental protection. ÚJD SR also points to the fact that the future operator must regularly submit to ÚJD SR periodic nuclear safety assessment at 10-year intervals including site characteristics including the Hron river. So if such changes occur in the Hron river in the future which cannot be predicted so far the periodic safety review will take it into account and the required measures will be proposed.

Chairperson of ÚJD SR does not agree with the Global 2000's statement and considers technical and scientific arguments against Global 2000 as specified herein sufficient and comprehensive.

#### **75. Piping materials/metallurgical components and conformity verification methodology**

GLOBAL2000 objects that ÚJD SR accepted the procedure of Slovenské elektrárne, a.s. when inspecting materials and metallurgical components, performing 3,410 inspections of metallurgical materials of the pipeline components installed, which resulted in the detection of 61 cases of material exchange and 293 cases of deviations from the standard and 12 replacements of piping parts were performed.

GLOBAL 2000 states that the methodology (verification of the quality of piping parts) does not include a complete inspection of all pipes, but only a random inspection (random sampling). This fact is not explicitly mentioned in the ÚJD SR Decision no. 156/2021.

ÚJD SR supervised and directed the course of used materials quality verification in an active methodical manner and published on its website very detailed information on the ongoing quality control of pipeline parts in the Mochovce nuclear installation Units 3&4 and on the results:

- a) Opinion of ÚJD SR on the identified exchange of material in components used in the construction of Units 3&4 of the Mochovce NPP on May 4, 2020

- <https://www.ujd.gov.sk/wp-content/uploads/2021/09/Stanovisko-UJD-SR-k-identifikovanej-zamene-materialu-u-komponentov-pouzitych-pri-vystavbe-3.-a-4.-bloku-JE-Mochovce.pdf>

b) Information of ÚJD SR on the current state of inspections at Unit 3 of NPP Mochovce 3&4, of 2 September 2020

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<sup>20</sup> <http://www.shmu.sk/sk/?page=2049&id=922>



[https://www.ujd.gov.sk/wp-content/uploads/2021/09/Informacia-UJD-SR-o-aktualnom-stave-kontrol-na-3.-bloku-JE-Mochovce-3-4\\_TS.pdf](https://www.ujd.gov.sk/wp-content/uploads/2021/09/Informacia-UJD-SR-o-aktualnom-stave-kontrol-na-3.-bloku-JE-Mochovce-3-4_TS.pdf)

in English

[https://www.ujd.gov.sk/wp-content/uploads/2022/01/Press\\_release\\_information-on-the-current-state-of-inspections-at-Unit-3.pdf](https://www.ujd.gov.sk/wp-content/uploads/2022/01/Press_release_information-on-the-current-state-of-inspections-at-Unit-3.pdf)

c) Preliminary results of quality checks of piping components at Unit 3 of Mochovce  
(<https://www.ujd.gov.sk/mo-34-predbezne-vysledky-kontrol-kvality-potrubnych-dielov-na-3-bloku-mochovce/>).

Note: Preliminary Report on inspections of piping parts materials is available only in Slovak.

Information in English:

<https://www.ujd.gov.sk/preliminary-results-of-quality-inspections-of-pipeline-components-at-unit-3-of-mochovce-npp/?lang=en>

- d) Final results of quality checks of piping components at Unit 3 of Mochovce  
<https://www.ujd.gov.sk/mo-34-zaverecne-vysledky-kontrol-kvality-potrubnych-dielov-na-3-bloku-mochovce/>

Note: Preliminary Report on inspections of piping parts materials is available only in Slovak.

- Information in English:

- <https://www.ujd.gov.sk/final-results-of-quality-inspections-of-the-pipeline-components/?lang=en>

Preliminary results of quality inspections of piping components at Unit 3 of Mochovce were published on the ÚJD SR website at the stage prior to the publication of the draft decision on the application of Slovenské elektrárne, a.s., for the issuance of a permit for the commissioning of Unit 3 of MO3 & 4 and related permits in order for the parties to the proceedings and the public could confront the text of the draft Decision with current data on the state of inspections of piping components.

The final results of quality inspections of piping components at Unit 3 of Mochovce were placed on the ÚJD SR website at the stage prior to the issuance of the decision itself regarding the application of Slovenské elektrárne, a.s. on the issuance of a permit for the commissioning of Unit 3 of MO3&4 and related permits in order for the parties to the proceedings and the public could confront the text of the issued decision with the final data on the state of inspections of piping components.

The following facts can be seen from the timing of the sequence of publication of preliminary results of quality inspections of piping components at Unit 3 of Mochovce and publication of the draft decision and publication of final results of quality inspections of piping components and the issuance of the Decision itself:

- ÚJD SR considered it possible to publish the draft Decision only after the publication of preliminary results of quality inspections of piping components. Preliminary results were processed at a stage when almost all tests were performed, their evaluation was completed and it was reasonably possible to assume that the preliminary results of inspections of piping parts would be almost identical to the expected final results.

- ÚJD SR issued a first-instance Decision in case no. 156/2021 only after the publication of the final results of tests of piping components. The parties to the proceedings and the public had at



their disposal the final results of these inspections even before the issuance of the ÚJD SR Decision no. 156/2021.

It can be seen from the above timeline that ÚJD SR performed procedural actions in administrative proceedings only after reaching a predetermined degree of finalization of the inspection of materials of piping components. At the same time, the approach of ÚJD SR to the parties to the proceedings / the public was forthgoing and transparent to the maximal extent (publication of the results of inspections before the procedural act - publication of the draft decision, or before issuing the decision in the case).

The reports (preliminary and final) on inspection of material of piping components provides the details of:

- Reasons for inspecting piping components at Unit 3 of Mochovce,<sup>21</sup>
- Methodology of performed inspections with regard to the explanation of the scope of inspections and the use of a graded approach to inspections,<sup>22</sup>
- Used methods of verification of quality and properties of materials in individual stages of verification,<sup>23</sup>
- Summary of inspection/test results,<sup>24</sup>:
- Evaluation of the results of the performed tests in terms of meeting the design requirements of the given pipeline parts at Unit 3 of Mochovce
- Final evaluation of results.<sup>25</sup>

As part of the quality verification, each cast (even compliant) from the affected deliveries of FEBE, a.s. was continuously verified, within the meaning of Chapter 10 of the MSE

It can be seen from the Table that a generally applicable graded approach stated in the MSE document was used during the quality control of the materials of the pipeline parts at Unit 3 of Mochovce:

- 100% inspected for SC I and SC II equipment (for SC II - pressure only)
- 50% inspected for SC II pressureless equipment
- 20% inspected for SC III equipment with a pressure of more than 0.65 MPa and a temperature of more than 85 °C, resp. 1 pc for BT III with lower parameters 0.65 MPa (pressure) and temperature less than 85 °C.

Note: If, during the inspection of SC III in the range of 20% (1 piece per quality and completeness certificate) (hereinafter referred to as "OJAK"), or SC II pressureless any deviation is found in the chemical composition of the steel used from the standard - the scope of inspection was increased to 100% of the piping components of such OJAK.

This procedure is documented in PNM 34483599 rev. 03. The approach was used only for piping components with confirmed OJAK, resp. inspection certificates. For unconfirmed OJAKs - the inspection was performed in the range of 100% of piping components for such OJAKs.

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<sup>21</sup> P. 10 Final Report on inspection of materials of piping components

<sup>22</sup> P. 11 to 18 Final Report on inspection of materials of piping components

<sup>23</sup> P. 18 to 26 Final Report on inspection of materials of piping components

<sup>24</sup> P. 27 to 54 Final Report on inspection of materials of piping components

<sup>25</sup> P. 55 to 58 Final Report on inspection of materials of piping components

For those piping components that were not inspected in accordance with the specified scope of inspections according to the given table, the analysis of the sensitivity of the piping components to material exchange was used.

In the first stage, the chemical composition of PC materials was verified regardless of the manufacturer or supplier. In this way, approximately 1,500 Piping Components were verified at Mochovce Units 3&4. The measurements were focused on the detection of carbon vs. austenitic corrosion resistant steel. For this reason, the measurements were performed for a shorter time, but all measured data on the chemical composition of PCs from the first stage were subsequently analysed. If there was a doubt about the achieved values, or the limit values were measured, such PCs were subsequently re-measured according to the requirements for the implementation of the measurement in accordance with MSE.

The ÚJD SR Decision no. 156/2021 presents the results of material inspection of piping components of Unit 3 of Mochovce, which are in accordance with the published Final Report on inspection of material of piping components.<sup>26</sup>

The ÚJD SR Decision no. 156/2021 is a reference to the Final Report from the evaluation of materials / metallurgical components that are used at Unit 3.<sup>27</sup> ÚJD SR considers such a reference to be absolutely correct, because the Final Report was published on the ÚJD SR website before the ÚJD SR Decision no. 156/2021.

GLOBAL2000 also states this fact on pages 4 and 5 of its Appeal<sup>28</sup>: "Information on the inspection methodology is given in the separately published "Summary Report - Quality Verification of Selected Supplies of Piping Components Used at Selected Facilities at Unit 3 of Mochovce". GLOBAL2000 hereby confirms that it had the report in good time and that it worked with it.

In the Final Report on the evaluation of materials / metallurgical components that are used in Unit 3,<sup>29</sup> and to which there is a reference in the ÚJD SR Decision No. 156/2021, directly states:

"As in the case of piping components (PCs) included in SC III, the XRF / OES measurement, the method of X-ray fluorescence analysis / opto-emission analysis, was performed on 20% of PCs from individual OJAKs, it is not possible to exclude the risk of not capturing a non-compliant PC. Therefore, an assessment of the probability of material exchange was performed on the basis of statistical data from the results of measurements with a focus on the quantification of rare events representing material exchange. In order to eliminate the risk thus identified, a sensitivity analysis of the PC to the material exchange was performed, which, based on the design parameters, identified some PCs as sensitive to the material exchange. The PCs so designated (58 PCs not verified in the range for SC III MSE) were additionally verified in the MSE range. The verification confirmed the use of the material mark prescribed by the project for all PCs thus verified."

**Based on the above, Chairperson of ÚJD SR does not agree with the above-mentioned statement of GLOBAL2000 and considers it unjustified and unsubstantiated.**

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<sup>26</sup> <https://www.ujd.gov.sk/mo-34-zaverene-vysledky-kontrol-kvality-potrubnych-dielov-na-3-bloku-mochovce/>  
<https://www.ujd.gov.sk/final-results-of-quality-inspections-of-the-pipeline-components/?lang=en>.

<sup>27</sup> Page 62 of the Decision of ÚJD SR No. 156/2021.

<sup>28</sup> *Global 2000 Appeal Against the First Degree Decision ÚJD SR No. 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (pages 5 and 6)*

76. Information on the inspection methodology is given in the separately published "Summary Report - Quality Verification of Selected Supplies of Piping Components Used at Selected Facilities at Unit 3 of Mochovce". According to GLOBAL2000, this report is not part of the supporting documentation for the Decision, which raises questions about the reliability of the entire text of the decision and the statements of ÚJD SR.

Preliminary results of quality inspections of piping components at Unit 3 of Mochovce were published on the ÚJD SR website at the stage prior to the publication of the draft Decision on the application of Slovenské elektrárne, a.s. for the issuance of a permit for the commissioning of Units 3 MO3 & 4 and related permits in order for the parties to the proceedings and the public could compare the text of the draft Decision with current data on the state of inspections of piping components.

The final results of quality inspections of piping components at Unit 3 of Mochovce were presented on the ÚJD SR website at the stage prior to the issuance of the Decision itself regarding the application of Slovenské elektrárne, a.s. on the issuance of a permit for the commissioning of Units 3 MO3&4 and related permits in order for the parties in the proceedings and the public could compare the text of the issued Decision with the final data on the state of inspections of piping components.

The following facts can be seen from the timing of the sequence of publication of preliminary results of quality inspections of piping components at Unit 3 of Mochovce and publication of the draft Decision and publication of final results of quality inspections of piping components and the issuance of the Decision itself.:

- ÚJD SR considered it possible to publish the draft Decision only after the publication of preliminary results of quality controls of piping components. Preliminary results were processed at a stage when almost all tests were performed, their evaluation was completed and it was reasonably possible to assume that the final results of inspections of piping parts would be almost identical to the expected final results.
- ÚJD SR issued a first-instance Decision in case no. 156/2021 only after the publication of the final results of tests of piping components. The parties to the proceedings and the public had at their disposal the final results of these inspections even before the issuance of the ÚJD SR Decision no. 156/2021.

It can be seen from the above time contexts that ÚJD SR performed procedural actions in administrative proceedings only after reaching a predetermined degree of finalization of the inspection of materials of piping components. At the same time, the approach of ÚJD SR to the parties to the proceedings / the public was as accommodating as possible (publication of the results of inspections before the procedural act - publication of the draft Decision, or before issuing the Decision in the case).

It is clear from the above statement of GLOBAL2000 that it had at its disposal the Final Report on the Inspection of Materials for Piping Components and used the data contained therein for the statement in the Appeal against the ÚJD SR Decision no. 156/2021.

The ÚJD SR Decision no. 156/2021 contains a reference to the Final Report on the evaluation of materials / metallurgical components used in Unit 3<sup>30</sup> ÚJD SR considers such a link to be absolutely correct, because the Final Report was published on the ÚJD SR website before the issuance of ÚJD SR Decision no. 156/2021. The questioning of "... *the reliability of the entire text of*

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<sup>30</sup> P. 62 of ÚJD SR Decision 156/2021.

*the Decision and the statements of ÚJD SR ...*<sup>31</sup> as stated by GLOBAL2000 in its appeal is not justified by anything.

**Based on the above facts, Chairperson of ÚJD SR cannot agree with the above-mentioned opinion of GLOBAL2000 and considers it unjustified.**

16. In the Summary Report - Verification of the quality of piping components used at selected facilities of Unit 3 of Mochoviec (hereinafter referred to as the "Summary Report") in par. 15 on p. 52 states that the risk of not identifying qualitatively unsuitable piping components cannot be ruled out and *"therefore an assessment of the likelihood of material exchange has been carried out"*. According to GLOBAL2000, such an approach is very unusual for the central part of the nuclear power plant. The methodology circumvents the fact that "at least some unsuitable pipelines are being overlooked, including in the main circuit, with possible catastrophic consequences."

The Summary Report, to which ÚJD SR Decision No. 156/2021 refers to, directly states: "Since in the case of PCs included in SC III, XRF (X-ray fluorescence analysis method) measurement was performed on 20% of PCs from individual OJAKs, the risk of non-capture of non-compliant PCs cannot be ruled out. Therefore, an assessment of the probability of material exchange was performed on the basis of statistical data from the results of measurements with a focus on the quantification of rare events representing material exchange. In order to eliminate the risk thus identified, a sensitivity analysis of the PC to the material exchange was performed, which, based on the design parameters, identified some PCs as sensitive to the material exchange. The PCs so designated (58 PCs not verified in the range for SC III MSE) were additionally verified in the MSE range. The verification confirmed the use of the material mark prescribed by the project for all PCs thus verified."

E.g., as for stainless steels, the ENSECO/KPS methodology takes into account 22 brands of steel of various ranges (according to the thermal and other processing methods) in total. Five brands were included in the ENSECO/KPS methodology upon the request of ÚJD SR. As for low-alloy carbon steels, the methodology takes into account 23 brands of such material out of which three brands were added upon the request of ÚJD SR.

Due to the high statistical significance (size) of the set of measured pipe parts by the XRF method (in the second stage of measurements according to MSE (more than 3,400 piping components)), it can be assumed with absolute certainty that other steel grades in the analysis do not need to be considered.

The ENSECO / KPS methodology is based on relatively complex mathematical apparatus and is introducing the term maximum comparative reduced stress in analysed piping component for the temperature ( $\sigma_{rs}$ )<sub>ij</sub>.

The name comparative stress is chosen because it is a quantity in units of stress, which is based on the strength calculation of a given piping component at a given temperature and stress (i-th condition). This quantity (determined only by calculation) allows a direct comparison with the material characteristics of the material (determined only by the properties of the material) - the nominal allowable stress at a given temperature. If the nominal reference voltage is less than the

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<sup>31</sup> *Global 2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (page 5).*

nominal permissible voltage, then the given material is suitable for the given purpose with the specified reserve  $n_i$ .

The mentioned methodology was applied in full to the piping components, which were part of the delivery of ENSECO and VUJE, a.s., for Unit 3 of Mochovce. Due to the specific conditions, the methodology for ŠKODA Jaderné Strojírnoství, a.s., was modified compared to the ENSECO / KPS methodology (in the first stage, those types of material were excluded from the assessment that could not be used for this purpose - for example smaller diameter tubes for bottom or lid production, etc.). Chemical composition of some piping components was not subject to the analysis using the XRF method in the second stage of the measurements according to MSE for the following reasons:

application of the methodology for inspection of piping parts for SC II and SC III equipment, for which

a) in the case of a confirmed certificate and positive inspection results in comparison with the standard for a given material brand, the scope of inspections was limited to min. 50% of piping parts (SC II, equipment without pressure), resp. min. 20% (SC III equipment with low pressure and temperature), inaccessibility of part of the piping parts for the chemical composition analysis by the XRF method.

The ENSECO/KPS methodology was applied to all such piping components - the maximum possible value of the stress of the given piping component was taken from the strength calculation, from which the maximum comparative stress was derived,

- (MPa) and this maximum comparative stress was compared with the nominal allowable stress for the whole range of materials, for which it was possible (stainless steel materials - 22 brands, low-alloy carbon steel - 23 brands).

By evaluation / calculation according to ENSECO/KPS methodology, a total of 58 piping components were found, for which an accidental exchange for some other material from the given assortment would not guarantee the required strength reserves. This fact is stated in the Final Report on the Inspection of Materials for Piping Components. The identified piping components were additionally verified in the range according to the second stage of MSE (XRF measurements). The verification confirmed the use of the material mark prescribed by the project for all piping components thus verified.

Moreover, UJD SR requested an analysis that would assess the effects of a possible breach of the integrity of unavailable pipeline parts. This analysis was prepared by the centralized engineering department of Slovenské elektrárne, a.s. This analysis is available to UJD SR inspectors in Mochovce. The analysis confirms that the possible failure of such pipeline parts does not lead to an increase in the risk arising from the operation of the nuclear power plant.

**Final assessment:** out of 7,962 of FEBE piping components, 3,410 were subjected to XRF chemical composition analysis (which is 42.82% of piping components from FEBE, a.s. delivery). Of this number of piping parts, 61 cases of material confusion and 293 cases of deviation from the standard (hereinafter referred to as "deviations") were found. All detected deviations were properly assessed, including laboratory determination of their chemical composition and laboratory determination of their mechanical properties in accordance with the accepted methodology. Due to unsatisfactory chemical composition or unsatisfactory mechanical properties, 12 piping components were replaced.

The remaining  $7,962 - 3,410 = 4,552$  piping components were subjected to a computational evaluation of the consequences of a possible exchange for another material (analysis of sensitivity to material exchange). At this analysis, it was conservatively assumed that the given piping component is exchanged for material with the worst strength characteristics (available on the market or really existing in MO34). If the analysis shows that the given piping component need not be acceptable after such exchange – it was included in the programme of chemical composition measurements. Deterministic safety analyses were performed for the unavailable piping components. Slovenské elektrárne, a.s., their material experts, various external experts (SAV, Faculty of Material Science and Technology of the Slovak University of Technology, ZMV, s.r.o.), designers (ŠKODA Jaderné Strojnírenství, a.s., ENSECO, a.s.), representatives of the metallurgical industry, quality control experts, and material experts from Materiálový a metalurgický výskum, s.r.o. from Ostrava, the Czech Republic participated on the inspection. ÚJD SR requested technical support from the Material Engineering Department of the Faculty of Mechanical Engineering, the University of Žilina. The Summary Final Report – rev. 8 (made available to the public) and other more than 20 supporting analyses were published in April 2021.

The evaluation of the quality of piping components was performed in full, part directly by measuring the chemical composition (XRF-analysers, or other measurements according to the methodology of verification of piping components), part by computational evaluation (ENSECO / KPS methodology) with subsequent measurement of potentially unsatisfactory piping components by XRF method or subsequent elaboration of an analysis of the consequences of a possible breach of the integrity of some of the given pipeline parts on the safe operation of the unit.

In terms of further risk assessment, namely corrosion damage of austenitic steels, deviations of Cr, Ni, Mo, Cu, Ti and C elements are decisive in terms of corrosion resistance. The measured deviations of the mentioned elements of the piping parts installed at Mochovce Unit 3 do not represent a risk of a change in the corrosion resistance during their further operation and no further measures are necessary.

The assessment of the residual risk of corrosion resulting from the replacement of stainless materials was performed for piping components in contact with potentially the most aggressive service media and a combination of semi-finished and heat sensitization (welding) during assembly. Based on the results of the inspected piping parts at Unit 3, piping parts with possible insufficient resistance to intergranular corrosion were identified. For all 390 pipe parts thus identified, their chemical composition was additionally measured using portable spectrum analysers. The chosen procedure, the used methods and the subsequent measurement results guarantee their sufficient resistance to intergranular corrosion.

Based on the above, Chairperson of ÚJD SR strongly disagree with the above-mentioned opinion of GLOBAL2000, she considers it unjustified and unsubstantiated. ÚJD SR strongly reject GLOBAL2000's statement that: "The methodology circumvents the fact that at least some unsuitable pipelines, including in the main circuit, are inspected, with possible catastrophic consequences of the proposed operation."

78. GLOBAL2000 requests that all measurements and data on the material / metallurgical component evaluation program be published in full and that detailed evaluations be published as to which parts have been and which parts have not been evaluated.

ÚJD SR published on its website the Final Report on the Inspection of Materials at Unit 3.

From other documents relevant for the decision:

- Document: Sensitivity analysis of piping components to material exchange
- Residual risk assessment FEBE, a.s. materials with annexes
- Data from the database of piping components referred to in the Final Report on Material Inspection at Unit 3

are owned by Slovenské elektrárne, a.s. and the inspectors of ÚJD SR and external evaluators cooperating with the same had them at their disposal in the Mochovce nuclear installation site. ÚJD SR do not have them at their disposal, so ÚJD SR cannot disclose them.

Based on the aforementioned facts, Chairperson of ÚJD SR does not agree with argumentation of Global 2000.

**79. Documentation related to drilling works in the containment civil structure**

GLOBAL2000 states that MBL states in its position of 20 February 2021 that part of the documentation concerning the seismic resistance of the Mochovce units is subject to the MBL retention right. ÚJD SR confirmed this fact in the Decision no. 156/2021 (p. 59: "This inspection confirmed that the part of the documentation on the executed drills by MBL which is stored in the premises of Slovenské elektrárne, a.s., is only in copies confirmed by the author's supervision. Regarding drilling protocols on drills carried out by MBL at Unit 3 by MBL, for which MBL exercises a right of retention, the attached statement from Solesi, SpA states that the originals were created by a subcontractor - MBL and those that are not part of the accompanying technical documentation is not available to Solesi, SpA, because MBL has retained them."

As stated by Global 2000, copies of MBL's protocols are not sufficient for assessing seismic resistance of the structures. As stated by Global 2000, the approach of ÚJD SR towards safety is "very lax"<sup>32</sup> since Chairperson of ÚJD SR announced that similar approaches were not right and they would not be accepted in the unit 4.

It is not true that it has been stated by ÚJD SR that copies of the protocols were sufficient for the assessment of seismic resistance of the structures. The required explanation of the approach of ÚJD SR can be found in the Decision No. 156/2021 as well as in the reasoning hereof (refer to item 61 excluding the last paragraph).

ÚJD SR strongly opposes GLOBAL2000's statement about "loose attitude to safety".

Slovenské elektrárne, a.s., notified ÚJD SR that MBL had settled its dispute with SOLESI, S.p.A. and all missing (withheld) protocols were handed over to Slovenské elektrárne, a.s.

In terms of administrative proceedings according to Section 57 par. 2 of the Administrative Procedure Code, it is a matter of supplementing the proceedings before submitting the file to the body authorized to decide on the appeal.

ÚJD SR inspectors inspected the previously detained MBL drilling protocols in Mochovce. Representatives of Slovenské elektrárne, a.s., submitted to the ÚJD SR inspectors the documentation

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<sup>32</sup> Global 2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (page 5).

previously held by MBL, to the extent for Unit 3, where 120 drills were identified, for which MBL exercised the retention right.

The result of the inspection is as follows:

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Názov PKSu	Room (Nr.)	(Anchoring point number) SJZ CODE	Typ prvku	Názov typológie
Inštalácia platní na betón a platne prizvárané na neklasifikovanej ocelevej konštrukcii	A015/1	3BJR32#01	Platňa	ZPG-EFD-ENS-02E-0020-1
Prechodka na betóne, nehermetickej a hermetickej výstelke	A0022/1	3KDT20BZ010#001	Priechodka	EFD-STO-1940
Prechodka na betóne, nehermetickej a hermetickej výstelke	A002/1-0377	3YCN00GL002.A#90-A 3YCN00GL002.A#90-B	Priechodka	PN-EFD_STO_2367-1
Prechodka na betóne, nehermetickej a hermetickej výstelke	A002/1-0377	3YCN00GL002.A#95-A 3YCN00GL002.A#95-B	Priechodka	PN-EFD-STO-2367-2
Prechodka na betóne, nehermetickej a hermetickej výstelke	A002/1-0377	3YCN00GL002.A#96-A 3YCN00GL002.A#96-B	Priechodka	PN-EFD-STO-2367-2
Prechodka na betóne, nehermetickej a hermetickej výstelke	A002/1	3YCN00GL006#73A 3YCN00GL006#73B	Priechodka	PN-EFD-STO-1861
Prechodka na betóne, nehermetickej a hermetickej výstelke	A002/1	3YCN00GL006#74A 3YCN00GL006#74B	Priechodka	PN-EFD_STO_1861
Prechodka na betóne, nehermetickej a hermetickej výstelke	A002/1-A03/1	3YCN00GL016#20A	Priechodka	PN-EFD-STO-2542-1
Prechodka na betóne, nehermetickej a hermetickej výstelke	A002/1-A03/1	3YCN00GL016#24A	Priechodka	PN-EFD-STO-2542-1
Prechodka na betóne, nehermetickej a hermetickej výstelke	A002/1-A03/1	3YCN00GL016#25A	Priechodka	PN-EFD-STO-2542-1
Prechodka na betóne, nehermetickej a hermetickej výstelke	A002/1-A03/1	3YCN00GL016#28A	Priechodka	PN-EFD-STO-2542-1
Prvok bol zrušený - nie je STD	A002/1-A104/1	3YCN00GL019#25-A 3YCN00GL019#25-AB	Priechodka	PN-EFD-STO-2367-3
Prechodka na betóne, nehermetickej a hermetickej výstelke	A03/1-A003/1	3YCN00GM021#15	Priechodka	PN-EFD-STO-2363-1
Prechodka na betóne, nehermetickej a hermetickej výstelke	A03/1-A003/1	3YCN00GM021#17	Priechodka	PN-EFD-STO-2363-2
Prechodka na betóne, nehermetickej a hermetickej výstelke	A240/1-A129/1	3YCN00GM240#01-A 3YCN00GM240#01-B	Priechodka	PN-EFD-STO-2356
Inštalácia platní na betón a platne prizvárané na neklasifikovanej ocelevej konštrukcii	A311/2	8LBR40BR001#022b	Svorníková platňa	ZSV-EFD_STO_1594-1
Prechodka na betóne, nehermetickej a hermetickej výstelke	A153-A02/2	8YCN00GM168#13A 8YCN00GM168#13B	Priechodka	PN-EFD-STO-2507-1

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Anchoring plate protocols include:

- There is a follow-up protocol for each drill, which lists the activities performed by the MBL on it.
- Protocols confirming the performance of the activity - most often these are drilling protocols, welding protocols (or data with welder identifiers, type of weld, date of welding) and data on the application of construction material for grouting of the drilled holes
  - The individual follow-up protocols (protocols for the given plate) are accompanied only by protocols on the execution of those works provided by MBL on the given plate. The inspectors of ÚJD SR evaluated statuses of MBL's protocols submitted and compared them to the copies submitted by Slovenské elektrárne, a. s. that were at their disposal from the previous inspections. The copies were enclosed with the statements of Solesi, S.p.A. confirming that copies were concerned there and that Solesi, S.p.A. did not possess the original copies since they were retained by MBL within the application of the retention right. Based on the comparisons performed and other characteristics of the MBL's drilling protocols submitted, ÚJD SR understand that the MBL's protocols submitted are original copies.
- Despite the said fact, all the said 120 drills have been included in the conservative recalculation of load-bearing structures weakened by cut reinforcing steel rebars in accordance with the Methodology for the assessment of structures weakened by cut reinforcing steel rebars.

ÚJD SR inspectors compared Annex no. 4 of the Methodology for the assessment of structures weakened by cut reinforcing steel rebars with the list of the MBL drilling protocols submitted. It is possible to confirm that all the drills the protocols of which had been detained by MBL are included in the database of cut reinforcing steel rebars and a corresponding stress analysis is performed for them.

After submitting original copies of the protocols by MBS, this static evaluation of the said drills became redundant. Nevertheless, the evaluation performed confirms correctness of the approach of ÚJD SR and Slovenské elektrárne, a. s. towards the problematic of retained drilling protocols of MBL in the stage before issuing the Decision of ÚJD SR No. 156/2021.

Based on the change to the facts, Chairperson of ÚJD SR does not agree with argumentation of Global 2000.

#### 80. **General consideration on ÚJD SR positions stated in Appeal 1**

##### **Design safety**

GLOBAL2000 in Appeal no. 1 claims that ÚJD SR with its statements in the Decision no. 156/2021, as well as in the opinions addressed to GLOBAL2000, only seeks to cover-up the obsolescence of the nuclear facility. It does not agree with the statement stated in the ÚJD SR Decision no. 156/2021, p. 33, that "During the construction, the general technical requirements for construction were observed. The construction is carried out according to the design documentation verified in the construction procedure in the matter of a change of construction before completion for the Mochovce Nuclear Power Plant VVER 4x440 MW, Project 3, in which the ÚJD SR Decision no. 246/2008 of 14 August 2008 and confirmed by the second-instance ÚJD SR Decision no. 291/2014

of 23 May 2014. It can be stated that the early use of the construction will not endanger the life and health of persons, nor the interests of society and the environment, therefore ÚJD SR decided as stated in the operative part of this decision. "GLOBAL2000 states that it follows that the last legally binding modifications to the power plant design were made in 2008 and confirmed in 2014. They question the safety of Units 3&4, which ÚJD SR allegedly publicly claims to meet the highest safety standards, while it turns out that Units 3&4 Mochovce are far from meeting current safety standards (WENRA Safety targets for new reactors) or Generation 3 reactors. They demand that ÚJD SR correctly inform the public about the safety of the design.

The achieved level of safety is described in MO34 POSAR (specifically in chapter 05.02 Fulfilment of design requirements, concepts and objectives),<sup>33</sup> which was published on ÚJD SR website. The said data allow for comparison of MO34 with the safety level achieved by other reactors.

WENRA reference levels are transposed into the legislation of the Slovak Republic to an appropriate extent. ÚJD SR provided for the elaboration of a comparative study, which evaluated the incorporation of WENRA reference levels into the legislation in the Slovak Republic in the stage of preparation of the amendment to the Atomic Act and Decree no. 430/2011 and other ÚJD SR decrees (Analysis of transposition of WENRA requirements for nuclear safety in Slovak legislation, year 2015). This study was prepared by an independent evaluator in 2015. Moreover, a peer review of the implementation of WENRA 2014 reference levels in all member states was performed and the action plan for incorporation of the missing requirements in the national regulatory frameworks was adopted during 2016. The process of the peer review is documented in the RHWG report published in March 2018 (Report Peer Review of the Implementation of the 2014 Safety Reference Levels in National Regulatory Frameworks). Results of the analysis of 2015 and RHWG peer review were taken into account when amending regulations in the field of nuclear safety in 2016 and later. A regular yearly reading of the implementation of WENRA 2014 reference levels is performed and a respective report is published within RHWG too. At the end of 2020, 331 requirements were implemented in Slovakia. That means, 11 requirements were missing only to achieve full scope of the implementation (Report Status of the Implementation of the 2014 Safety Reference Levels in National Regulatory Frameworks as of 1 January 2021). Almost every missing requirement has already been included in the amendment to the regulation and in safety guidelines publishing of which is in the final preparation stage.

81. After incorporating the WENRA reference levels in 2016 and later, it is possible to consider their transposition into Slovak legislation as complete. Evaluation of completeness/level of incorporation of WENRA reference levels into the relevant legislation of the Slovak Republic depends on the evaluation criteria. Not in all cases, the exact text of the WENRA reference levels has to be taken over. However, this is not even possible in the case of legislative documents that have been amended for this purpose. Based on the results of the comparison of the content of the WENRA requirements and the legislation of the Slovak Republic, it is possible to state their incorporation into our legislation. WENRA Safety Objectives for New Reactors were published in 2009 (December 2009), and for MO34 design they apply as reference for identifying reasonably practicable safety improvements. MO3&4 design meets important safety objectives from the "WENRA Safety

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<sup>33</sup> <https://www.ujd.gov.sk/mo-34-podklady-pre-rozhodnutie-3-blok-zverejnenie/>

Objectives for New Power Reactors” including dealing with severe accidents involving melting of fuel.

ÚJD SR does not agree with the statement of GLOBAL 2000 on the number of unincorporated WENRA reference levels for existing reactors into Slovak legislation. In the paper, to which GLOBAL2000 refers, there are no specific data on those WENRA reference levels that would not be incorporated into the Atomic Act and its implementing regulations according to GLOBAL2000. Safety objectives of WENRA for new reactors do not apply to the MO34 Project since the MO34 Project was approved before their preparation. They are recommendations for identification of feasible future safety improvements of the Project. The MO34 Project meets relevant safety objectives from the document WENRA Safety Objectives for New Power Reactors, including the solution of severe accidents associated with the melting of nuclear fuel.

With regard to the requirements of European regulations, they will, under Article 8a(2) of Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations, be applied to the nuclear installations with the building permits issued after 14 August 2014. As resulting from the said facts, the MO3 Project complies with the requirements of the secondary EU regulations.

Regarding the IAEA requirements for reactor design, it can be stated that the MO34 NPP meets the requirements of IAEA stated in the standard Safety of Nuclear Power Plants (SSR-2/1, Rev. 1) (refer to point 81.), despite the fact that in accordance with Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations, Units MO3&4 are not a new NPP.

ÚJD SR published PSR of MO3&4, containing the necessary data on safety of MO3&4 Units.

Chairperson of ÚJD SR does not agree with argumentation of Global 2000 regarding the failure to incorporate WENRA reference levels in Slovak regulations and thus also the failure to proceed in compliance therewith.

**82. Statement saying that the obsolete design is in question that does not meet current requirements**

In their appeal against the Decision of ÚJD SR No. 156/2021 and referring to the Decision of ÚJD SR No. 246/2008 of 14 August 2008 confirmed by the second-instance Decision of ÚJD SR No. 291/2014 of 23 May 2014, GLOBAL2000 state that the last binding legal adjustments of the power plant design were made in 2008. As commissioning does not take place until 2022, Global 2000 question the level of safety of Units 3&4 and state that condition of the power plant is obsolete and complies with the Decision of 2018. As stated by Global 2000, Units 3&4 are “far from reaching the current safety standards for new power plants (WENRA) Safety standards for new reactors or Generation 3 reactors.”<sup>34</sup> ÚJD SR in the response to the statements of the Government of Lower Austria stated in the Decision No. 156/2021 that the Mochovce Units 3&4 nuclear installation does not belong to the Generation 3 of nuclear reactors. However, it meets the requirements of Slovak legislation, in which the WENRA reference levels are implemented. GLOBAL2000 claims that since 2020, ÚJD SR has not implemented 20 of the 342 requirements of the WENRA group. It refers to a

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<sup>34</sup> *Global 2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (page 6(4)).*

document entitled “Lessons not Learned from the Fukushima Accident Risks of the European NPPs 10 years later”.<sup>35</sup>

ÚJV Řež a.s., as the author's supervision of the MO3&4 construction design, evaluated the MO3&4 design by comparing it with the safety requirements set out in the IAEA document SSR-2/1 (Rev.1) Safety of Nuclear Power plants: Design. This standard is one of the most significantly improved since the Fukushima Daiichi accident and reflects all the experience gained and current nuclear safety requirements. In 2016, a revision of SSR-2/1 (Rev. 1) was published, which includes, among other things, other new requirements regarding extended design conditions (/ DEC) and the practical exclusion of power plant conditions that could lead to an early major release of radioactive substances. In addition, SSR-2/1 (Rev.01) emphasizes the application of the defence-in-depth concept by requiring, as far as possible, the independence of structural safety features considered at different levels of protection. The said report of the MO34 Construction Design Author Supervision demonstrates compliance of the MO34 Project with all 82 requirements contained in SSR-2/1, Rev. 1 and compares the achieved level of safety of Mochovce Units 3&4 with the latest safety requirements that are currently applicable to the new nuclear power plants. References to the relevant design documentation are provided in the report as a link to more details. Other relevant source documents referred to in this document by the author supervision are the Pre-operational Safety Report (POSAR) and the MO34 Stress Test Report.

The achieved level of MO34 safety is described in chapter 05.02 of the Pre-operational Safety Report (Fulfilment of design requirements, concepts and objectives),<sup>36</sup> which is published on the ÚJD SR website. These data allow a comparison with the achieved level of safety of other reactors.

Document, to which GLOBAL2000 refers to contains only one data on the given topic (according to which 20 WENRA recommendations have not been allegedly implemented in the Slovak legislation). No further data on this topic is available.

ÚJD SR maintains its position that after the incorporation of WENRA requirements in 2016 and later, it is possible to consider their transposition into Slovak legislation as complete within the scope of WENRA Report – Safety Reference Level for Existing Reactors. Chairperson of ÚJD SR does not agree with the argumentation of Global 2000 upon which the MO34 nuclear installation does not achieve the top safety standards even under the WENRA reference levels.

### 83. **Issues associated with small aircraft impact**

GLOBAL2000 cites the decision No. 156/2021 (p. 40, replies of ÚJD SR to the statements of the Provincial Government of Lower Austria): “Ad 4) The Mochovce Nuclear Power Plant (Units 3&4) is secured against the impact of a small aircraft by a separate construction design, as well as documentation describing the activities of personnel in the event of an initiation event - the impact of a small aircraft on the MO3&4 nuclear facility. The protection of the power plant against the impact of a small aircraft was carried out at the request of the Commission of the European Communities pursuant to Art. 43 of the Treaty establishing the European Atomic Energy Community (Euratom),

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<sup>35</sup> Lessons not Learned from the Fukushima Accident Risks of the European NPPs 10 years later. Oda Becker, Patricia Lorenz, Hannover, February 2021 .  
<https://www.greenpeace.de/sites/www.greenpeace.de/files/publications/20210303-greenpeace-akw-europa-fukushima.pdf>

cited in Final Opinion on EIA of MO3&4 on the proposed activity Mochovce NPP WWER 4x440 MW, Project 3. According to § 12 par. 1 (e) of Act no. 575/2001 Coll. dealing with the situation of threat to NPP by a commercial aircraft is within the competence of the Ministry of Defence of the SR, quote: "Ensuring the inviolability of the airspace of the Slovak Republic". Other activities of the armed forces related to the issue of airspace violation are listed in § 4 of Act no. 321/2002 Coll. on the Armed Forces of the Slovak Republic, as amended (hereinafter referred to as "Act No. 321/2002 Coll."). The design documentation for securing MO3&4 against the impact of a small aircraft is subject to the regime set out in Act no. 215/2004 Coll., and therefore was not disclosed to the public."

Further, GLOBAL2000 quotes from the ÚJD SR Decision No. 156/2021:

"Ad 5) The Mochovce Nuclear Power Plant (Units 3 & 4), as well as other operating units of nuclear facilities in the Slovak Republic, is equipped with facilities and systems for the management of severe accidents. Information about these devices and their functionality is available on the ÚJD SR website, e.g. in Stress Test Reports or in the document PSR of MO3 & 4 - summary of basic data. Regulations for dealing with severe accidents are implemented at NPP units in the Slovak Republic and experts for dealing with severe accidents are available. When dealing with severe accidents, a strategy of maintaining and cooling the molten core in the reactor pressure vessel, which has been verified experimentally, is used."

GLOBAL2000 states that the MO34 nuclear installation is not adequately protected against the large number of commercial aircrafts that regularly fly over the power plant. Measures against the aircraft impact consist of technical measures ("series of protection nets") and also depend on the proper functioning of the staff. They question the ability of staff to carry out activities correctly, referring to the conclusions of the WANO and OSART Missions. They question the army's ability to prevent the plane from hitting the power plant (within minutes). They state that serious accidents resulting from terrorist acts or natural phenomena must be largely handled by personnel or the military, contrary to Fukushima's findings - improved reliable passive safety systems are to be installed instead of mobile equipment and personnel.

Slovenské elektrárne, a.s., implemented technical measures against an external event (crash of a small aircraft) in accordance with the requirements of the Final Opinion of MO34 EIA. These technical measures are supplemented with the activities of the Emergency response organisation in Mochovce in the field of protection of civil structures defined in writing. This fact is stated in the Decision of ÚJD SR No. 156/2021 on the pages 24 and 25 as follows: "Slovenské elektrárne, a.s., submitted the respective documents to ÚJD SR. Their content is secret. ÚJD SR issued the Decision No. 290/2010 of 16/08/2010 permitting erection of protection barriers. The related documentation is subject to the confidentiality mode under Act No. 215/2004 Coll., and for this reason it was not made available to the public. ÚJD SR considers conditions no. 1 and no. 2 of Decision no. 266/2008 as fulfilled."

It can only be added to the above statement that before the construction of protective barriers, various possibilities of the impact of a small aircraft on the MO34 civil structures were analysed and based on their evaluation, a later implemented technical solution was adopted. PSR of MO3&4, which ÚJD SR published on its website, in chapter 04.02 (Risk assessment of specific external events) on p. 14 and 15 read as follows:

*"The general approach to the evaluation of internal and external events in the MO3&4 NPP design is based on the following principles:*

*a) It is proven that the probability of a risk event is less than established in the probability criterion of limited impact. If the calculated frequency of occurrence of risk induced by the occurrence of*

internal or external event less than  $1.0 \times 10^{-7}$  year<sup>-1</sup>, then this risk is considered acceptable and no additional measures to limit it are necessary.

*The assessment of the risk of an aircraft impact on a NPP object was evaluated by applying the internationally accepted approaches SDV (i.e. safe distance limit value) and SPL (i.e. safe probability limit value). Analyses performed according to the IAEA Safety Guide methodology<sup>37</sup>) and the results of the aircraft impact assessment, as a consequence of the operation of the surrounding airports and activities related to their operation, presented in Chapter PSR 7.2.3.2 Safety analyses for external events, did not show any threat to the Mochovce NPP. The SPL approach was applied to assess the risk of an aircraft impact as a result of general air traffic in the region. As part of the updated analysis, aircraft crash frequencies were calculated.”*

84. The summary annual frequency of accidental aircraft impacts on a reference object MO34 due to general air traffic is  $3.58 \times 10^{-8}$  / year. The probability of a civilian aircraft impact is extremely low -  $4.87 \times 10^{-9}$ /year. Possible threat to the locality by sports and recreational flights and agricultural flights is addressed by the envelope due to the threat of small aircraft - technical measures. The summary frequency of occurrence of the event is less than the exclusion value SPL  $1.0 \times 10^{-7}$  / year recommended in international practice, e.g.<sup>38</sup> or <sup>39</sup>. Based on the conclusions given in chap. 7.2.3.2.1 PSR of MO3 & 4 and based on the performed analyses it can be stated that in terms of international methodology criteria, current assessment of air traffic in the vicinity of the Mochovce nuclear installation and its design solutions, the risk of nuclear safety at the Mochovce nuclear installation due to aircraft crash is negligible (very low) and no additional technical or organizational measures are required in the MO34 design.

ÚJD SR verified background documents for the analysis of the probability of a large civil aircraft crashing as a result of air traffic on EMO facilities and checked the results thereof. ÚJD SR requested by letter current data on the number of flights within a radius of 50 km from MO34 and Air traffic control of the SR provided this data to ÚJD SR. Based on them (after extrapolation of trends for the future period and exclusion of a decrease in the frequency of flights during the COVID pandemic from the extrapolation), the relevant probabilities were calculated using an internationally recognized methodology. The results submitted by SE, a.s., were thus confirmed.

Based on the aforementioned facts, Chairperson of ÚJD SR does not agree with argumentation of Global 2000.

85. **Situation with other threat to NI by an aircraft:**

The possible diversion of a transport aircraft from the flight path over the territory of the Slovak Republic is resolved by the procedures specified in the justification of the ÚJD SR Decision no. 156/2021: “According to § 12 par. 1 (e) of Act no. 575/2001 Coll. dealing with situation of threat to NPP by an aircraft falls within the competence of the Ministry of Defence of the SR, quote "Ensuring the inviolability of the airspace of the Slovak Republic". Other activities of the armed forces related to the issue of airspace violation are listed in § 4 of Act no. 321/2002 Coll.

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<sup>37</sup> Safety Guide No. NS-G-3.1, IAEA Safety Standard Series - External Human Induced Events in Site Evaluation for NPPs, 2002

<sup>38</sup> International Atomic Energy Agency, External Human Induced Events in Site Evaluation for Nuclear Power Plants, Safety Standards Series No.NS-G-3.1, IAEA,Vienna, 2002.

<sup>39</sup> IAEA-TECDOC-1341 - Extreme External Events in the Design and Assessment of Nuclear Power Plants, 2003.

External threat from aircraft impact on MO3&4 nuclear facilities is addressed for small aircraft impact by technical measures in accordance with point 3.4 of the Final Opinion of MO34 EIA and procedures of operating personnel, for the accidental impact of other aircraft - by proving a negligible probability of such an event and for other threats to the nuclear facility by the aircraft - by the activities of the Armed Forces of the SR. This is in full compliance with Annex 3 (B) (II) section E par. 2 (b) of Decree no. 430/2011 as amended.

86. ÚJD SR was directly involved in obtaining data for the analysis of the probability of a large civil aircraft impact as a result of air traffic on EMO facilities - and requested current data on the number of flights within a radius of 50 km of MO3&4, and air traffic control provided these data to ÚJD SR. Based on them (after extrapolation of future trends and exclusion of a decrease in the frequency of flights during the COVID pandemic from the extrapolation), the relevant probabilities were calculated using an internationally recognized methodology. Any diversion of a transport aircraft from the flight path over the territory of the Slovak Republic is solved by the procedures under Section 12(1), item e) of Act No. 575/2001 Coll. in the scope of action of the Ministry of Defence of the Slovak Republic, cited "provision of sovereignty over airspace of the Slovak Republic". Other activities of armed forces relating to the problematic of airspace infringement are stated in Section 4 of Act No. 321/2002 Coll.

ÚJD SR very strongly rejects the statements of GLOBAL2000, which question the operational staff of MO3&4, referring to the conclusions of the WANO and OSART Missions. MO3&4 operating personnel completed training according to programs approved by ÚJD SR. In all cases, the operators are employees who have practical experience in performing the same function at EMO Unit 1 or 2. The staff has precise step - by - step instructions in the event of a given external event (aircraft impact). These documents are available to ÚJD SR in Mochovce in the DOS database. There is a functional emergency response system in MO3&4, which is regularly practiced. The OSART Mission objected only to the activities of contractor staff or against the organization of work on the Project. Questioning the operating staff by GLOBAL2000 is unjustified and unsubstantiated.

The measures following the Fukushima accident were implemented in MO3&4 as a combination of passive measures (earthquake resistance, strong winds, snow, high temperature, low temperature, floods, flooding of the reactor pressure vessel from the inside during a severe accident and others) and hardware means that require staff intervention for activation. With the chosen concept of the protection of Units MO3&4 from external / internal initiation events and accidents within the scope of the extended design, the analyses show that the best results in terms of success criteria are achieved by combining passive measures with personnel interventions. Detailed step-by-step procedures are developed for staff interventions to minimize possible errors.

87. External threat from aircraft impact on MO3&4 nuclear installation civil structures is addressed for small aircraft impact by technical measures in accordance with point 3.4 of the Final Opinion of MO34 EIA and procedures of operating personnel, for accidental crash of another aircraft - by demonstrating a negligible probability of such an event and for other threats to the nuclear facility by the aircraft – operation of Armed Forces of SR. This is in full compliance with Annex 3 (B) (II) (E) par. 2 (b) of Decree No. 430/2011 Coll.

Chairperson of ÚJD SR does not agree with the statement of GLOBAL2000 in relation to the threat to Unit 3 of the MO34 by the aircraft impact. Chairperson of ÚJD SR strongly rejects the attempt of GLOBAL2000 to question the competencies of operating personnel as absolutely unsubstantiated and purpose-made.



## 90. Deep Geological Repository

The Slovak Government has approved the draft national policy and national programme of handling with SNF and RAW in Slovakia by its Resolution No. 387/2015. This document has, including but not limited to, addressed the method of providing safe and sustainable handling with SNF and medium-active radioactive waste (hereinafter referred to as “MAW”) the surface storage of which in the republic RAW úložisku in Mochovce is not acceptable. The so-called double way is assumed in the strategy, i.e., research and preparation of the deep deposition of SNF and MAW in the territory of Slovakia and parallel monitoring of the international repository development problematic and participation on the related international projects. Based on the geological surveys performed and planned works in the field of research and development, it is assumed the final location to be chosen in 2030. It is assumed the process of evaluation of environmental impacts of the deep repository to be performed in 2030 to 2045. The operation of the DGR itself is expected in the years 2065 to 2115. The possibility of future reprocessing of SNF also remains open.

There is no doubt that the deep disposal program will not be completed before the planned commissioning of MO3, but until the availability of a suitable alternative storage for SNF and intermediate RAW, the Slovak Republic will apply a strategy of long-term safe storage of these materials, for which it has created technical conditions (extended storage capacities of intermediate storage for safe long-term storage of SNF and new storage capacities in the Integral RAW Storage for safe long-term storage of RAW that cannot be disposed in surface repository), as well as institutional preconditions in the form of the existing state agency responsible for the operation of these facilities as well as activities in the implementation of the deep disposal program (JAVYS, a.s.).

The situation of the Slovak Republic in the field of deep disposal is, in terms of approach and schedule, comparable to many EU countries, including Austria, e.g. in the implementation of the Austrian program for the management of institutional RAW, resp. with SNF from the operation of research reactors. The Slovak national policy and the national program for the management of SNF and RAW were elaborated and, in accordance with the relevant provisions of Council Directive no. 2011/70 / Euratom of 19 July 2011 establishing a Community framework for the responsible and safe management of spent fuel and radioactive waste, were notified to the European Commission on a regular basis.“

91. Assertion that there is no activity in the Slovak Republic related to the search for DGR is not based on the truth. The first studies on DGR in Slovakia were prepared in the early 1990s in the former Czechoslovakia and were followed in the years 1996 to 2001 by the development program of DGR in Slovakia under the coordination of Slovenské elektrárne, a.s. Within the program, there were plenty of reports prepared, which included feasibility studies, documents for safety analyses, analyses for public involvement and, above all, initial geological mappings and surveys were prepared. In Slovakia, the potential of the geological environment for the construction of DGR was already evaluated in this period. Based on international recommendations, the characteristics of a suitable locality in Slovakia were determined, representing the initial step towards selection criteria for assessing the suitability of sites using multicriteria analysis. As a result of the evaluation of archival information and maps and the basic geological survey, 5 prospective sites were proposed for further geological survey, which are still being considered at present.

92. It was focused on the evaluation of previous activities in order to use the knowledge gained in the past. It turned out that especially studies in the field of site selection can still be fully

accepted and follow up on these studies with other activities in the site selection of the DGR. Within 2013 to 2016, the re-evaluated site selection criteria were developed, the feasibility study of the DGR in Slovakia was updated, recommendations for work with the public were elaborated and, last but not least, plans were elaborated for the next stages of the DGR development program.

The process of development of the DGR is divided into several stages, starting with the stage of site selection and ending with the stage of closure of the repository and potential subsequent institutional control. The whole process is planned for 100 and more years, for this reason the activities that need to be carried out in the next 15 – 20 years were described in more detail. Activities in the next stages of DGR development can only be foreseen in a framework.

93. In the years 2017-2018, the DGR development program continued with elaboration of the geological task project, framework programme of development and research in the area of deep storage, including the requirements for its implementation and the proposal for the implementation of the system of economic incentives of sites affected by the development and operation of DGR.

The other activities were proposed as a set of professional and support activities that should be implemented and coordinated by 2025. The complex of such professional activities includes exploration geological work for site selection with the implementation of exploration wells in two sites, research works required for documenting safety (from the analysis of the source member, through studies of packaging files and damping materials, creation of databases up to the elaboration of security analyses) and design of design solutions for the safety concept. In solving individual tasks, it is necessary to follow up on international experience with the aim to obtain the required know-how. The plans for geological, research and engineering activities are detailed and feasible, but it should be noted that, like many other countries, Slovakia faces the issue of resolving some socio-economic issues, one of which is to choose the optimal approach to public involvement in the DGR project, especially in the ongoing phase of site selection. Therefore, the central challenge in the near future will be to develop a detailed decision-making plan that also takes into account the involvement of all actors involved responsibly. The further progress in the implementation of the project will be elaborated in more detail within the update of the relevant part of the National Policy and the National Spent Fuel and Radioactive Waste Management Program in the Slovak Republic.

94. In particular, the elaboration of a phased schedule for preparation of DGR and strategy for communication with the public and conditions and procedure for economic incentive for the affected localities is concerned here. All the above documents should be considered in the wider discussion of the stakeholders during the preparation of the National Program update, taking into account the need to develop tools and conditions for public involvement in the process, site selection as well as mechanisms to control how these tools and conditions are implemented in practice.

95. The statement saying that the reference in the Decision of ÚJD SR No. 156/2021 is relating to the ERDO Project the success of which is very improbable since no country is willing to accept foreign radioactive waste is misleading. Reference in the Decision of ÚJD SR No. 156/2021 does not only concern the said project, but the whole package of international activities, in which the Slovak Republic is involved in the implementation of the DGR development program through the National Nuclear Fund of the Slovak Republic, VUJE, a.s., the Faculty of Electronics and Informatics of the Slovak Technical University, and other experts. It is, indeed, focused on finding optimal scientific and technical solutions in selected areas of RAW management and especially the development of DGR. The main motivation for these activities is to increase the international level

of safeguards of non-use of fission material for other than peaceful purposes and supporting projects of the common European regional repository with the aim to identify solutions that will help progress in finding common solutions for RAW and SNF disposal, especially for countries with a small nuclear program.

96. Currently, the complete project of the deep deposition of nuclear waste including spent fuel is the greatest challenge in the field of research and development of the final part of peaceful use of nuclear power. This problematic can also be found in the Slovak Government's Programme for the period from 2021 to 2024, where it is stated with regard to the deep repository problematic: *"We will open a formal and technical discussion regarding permanent repository of spent nuclear waste including fuel – we will support preparation of a study in the disposal of nuclear waste including fuel for the coming period."*<sup>40</sup>

97. GLOBAL2000 in its appeal against the ÚJD SR Decision no. 156/2021 also stated that the Slovak Republic has had a Strategy for SNF and RAW since 2008, which was updated in 2014 and the updated of 2015 was not subject to cross-border review, so the public could not participate in the preparation of the national program.

The fact that the updated Strategy of the back-end of the peaceful use of nuclear energy from 2014 was not subject to a cross-border assessment and that the EIA process under Act no. 24/2006 Coll. did not take place, was decided by the Ministry of the Environment of the SR as the competent body and the Ministry of the Environment of the SR as the departmental body. The reasons why such a decision was taken in the screening procedure can be found in its reasoning. ÚJD SR has at its disposal the relevant decision of the Ministry of the Environment of the SR<sup>41</sup>, according to which the change of the strategic document "Strategy of the back-end of peaceful use of nuclear energy in the Slovak Republic" will not be further assessed under Act no. 24/2006 Coll.

Based on the facts above, Chairperson of ÚJD SR states that:

- GLOBAL2000's claim that there is no activity in the Slovak Republic related to the search for DGR is not based on the truth;
- GLOBAL2000's statements about the improbability of the success of the implemented international activities are inadequate and disparage the work of Slovak and foreign experts working within the mentioned cooperation projects,
- the Ministry of the Environment of the SR decided on the procedure in relation to the EIA process for the updated strategy of the back-end of the peaceful use of nuclear energy from 2014/2015 ÚJD SR has no competences in this area and the critique of Global 2000 has been addressed to a wrong public administration authority.

98. In Appeal no. 1, GLOBAL2000 also commented on the statement by ÚJD SR, which was a response to the draft Decision on 15 April 2020. In it, GLOBAL2000 referred to the "Evaluation of the method of compliance with the recommended conditions specified in the Final Opinion on EIA MO3&4 (hereinafter "evaluation of the method of compliance") of 12 December 2019, and Chapter

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<sup>40</sup>) page 53 of the Slovak Government's Programme, approved by the Resolution of the Government No. 228/2021, approved on 28 April 2021.  
<https://www.nrsr.sk/web/Dynamic/DocumentPreview.aspx?DocID=494677>.

<sup>41</sup> Decision of the Ministry of Environment of the SR No. 2909/2013-3.4./hp.

13 of the PSR of MO3&4 concerning environmental impacts of 14 September 2018. GLOBAL2000 states that the fact that ÚJD SR did not disclose some parts of this documentation, as they are considered classified information, only hides behind the possibility of making information confidential. According to GLOBAL2000, the best international practice in 2021 certainly concerns at least Stress Tests, in which no small aircraft is mentioned, which, according to him, confirms the requirements of ENSREG: “In response to the Fukushima nuclear accident in 2011, risk and safety assessments were carried out at all nuclear power plants in the Euratom Member States. (“Stress Tests”). *“The purpose of the evaluation was to verify; whether the safety standards used to obtain licenses for specific power plants are sufficient to cover unexpected extreme events. The tests specifically assessed the ability of nuclear power plants to withstand damage caused by threats such as earthquakes, floods, terrorist attacks or collisions.”*<sup>42</sup>

99. Analyses of the possible consequences of a small aircraft crash / impact on different MO34 civil structures, at different angles and at different points of construction objects were performed. Based on the performed analyses, technical measures were then implemented, which are aimed at full compliance with the requirements set out in points 3.1 and 3.4 of the Final Opinion (No: 395/2021 - 3.4 / hp of 28 April 2021), which on page 71 reads as follows:

3.1 After granting a permit for commissioning a nuclear installation, ensure compliance with all conditions specified in the ÚJD SR Decisions no. 246/2008, 266/2008 and 267/2008, after issuing the ÚJD SR permit for commissioning and operation of MO 3&4 to ensure compliance with all conditions specified in the relevant ÚJD SR permits.

3.4 Implement in the safety documentation, in cooperation with the regulatory authorities, the recommendations set out in the opinion of the Commission of the European Communities pursuant to Art. 43 of the Euratom Treaty [C (2008) 3560 of 15 July 2008]. To this end, the Commission recommends that the investor work closely with national authorities:

- In line with international best practice, developed a reference scenario including a deterministic effect from an external source (eg small aircraft crash),
- On this basis, within the design basis of the proposed investment, evaluate and apply appropriate additional elements, functional potential and management strategies to withstand possible deterministic effects from an external source (eg impact of a small aircraft with malicious intent), in order to reconcile the design with existing best practices.

Slovenské elektrárne, a.s., implemented technical measures against an external event (impact of a small aircraft) in accordance with the requirements of the Final Opinion (Final Opinion, No: 395/2010 - 3.4 / hp of 28 April 2021). These technical measures are supplemented with the activities of the Emergency response organisation in Mochovce in the field of protection of civil structures defined in writing. This fact is stated in the Decision of ÚJD SR No. 156/2021 on the pages 24 and 25 as follows: “Slovenské elektrárne, a.s., submitted the respective documents to ÚJD SR. Their content is secret. ÚJD SR issued the Decision No. 290/2010 of 16/08/2010 permitting erection of the safeguard. **The related documentation is subject to the confidentiality mode under Act No. 215/2004 Coll. and was not made available to the public for this reason.** ÚJD SR considers conditions 1 and 2 of the Decision No. 266/2008 as fulfilled.”

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<sup>42)</sup> P. 9 par. 3 of GLOBAL2000 Appeal Against the First Degree ÚJD Decision 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3.

100. It can only be added to the above statement that before the construction of protective barriers, various possibilities of the impact of a small aircraft on the MO34 civil structures were analysed and based on their evaluation, a later implemented solution was adopted.

ÚJD SR states that the related documentation is subject to the secrecy regime according to Act no. 215/2004 Coll. and for this reason it was not made available to the public.

Due to these reasons, Chairperson of ÚJD SR agrees with the opinion of the first-instance administrative authority and insists on correctness of the statement based on the reasoning of the ÚJD SR Decision No. 156/2021.

**101. BSVP protection, informing the public about systems for ultimate heat removal**  
GLOBAL2000 further states that the location of the storage pool is not part of the containment. According to GLOBAL2000, it is common practice "... to have a spent fuel storage pool close to the containment, which is not the case at the MO3 NPP, and this information is not available to the public in any way. GLOBAL2000 claims that the level of safety of the MO 3 NPP is not clear compared to the newly built reactors in the EU in 2021. " According to them, the method of dealing with the need for having separate and different means for heat removal for the Mochovce units is not explained, and there is no such method.

GLOBAL2000 also refers to the POSAR published on the ÚJD SR website, where, according to GLOBAL 2000, only basic information on the operation of nuclear reactors is mentioned. According to their opinion, it does not contain specific information regarding specific aspects of the operation of a nuclear power plant, e.g. severe accident management, or heat removal. GLOBAL2000 further uses the document "Lessons not Learned from the Fukushima Accident Risks of the European NPPs 10 years later,"<sup>43</sup>) according to which only mobile equipment is used for to provide power supply in case of power loss. Citing this material, GLOBAL2000 states that this system is less reliable compared to the new possibilities. According to him, the issue of severe accidents will remain open, as there are no guarantees to show that the most important modification (tank retainment concept (IVR) can reliably prevent large-scale radioactive leaks. Measures normally installed to prevent major radioactive releases in the event of a severe accident - a filtered containment venting system will not be implemented. In conclusion, GLOBAL2000 argues that their position on the ongoing process and lack of information for the public is still relevant and does not know how the MO3 nuclear power plant will differ from the old type of nuclear power plant.

In the WWER 440 design, the spent nuclear fuel storage pool (hereinafter referred to as "SNF") is located outside the containment. This fact is stated on p. 17, chap. 6.10 PSR of MO3&4,<sup>43</sup> which ÚJD SR published on its website as part of the documentation for the Decision ("the SNF storage pool is located in the reactor hall"). This chapter of PSR of MO3 & 4 also provides additional information on the spent fuel cooling and storage system. At the given position of SFP, the "heat removal" safety function has been significantly enhanced and the second and third levels of the defence in depth concept – SFP have three independent cooling circuits (tested within the programme of non-active tests 3P024 and 3P039), independent coolant make-up systems including gravitational make-up from the trays of the accident localization system (tested within the programme of non-active tests 3P061A), make-up from the emergency coolant source (SAM) (tested within the programme of non-active tests 3P063B), and a possibility of coolant make-up from an external

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<sup>43</sup>[https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Kapitola\\_6\\_5/\\$FILE/Kapitola\\_06\\_10\\_00\\_00.pdf](https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Kapitola_6_5/$FILE/Kapitola_06_10_00_00.pdf)

source. The emergency coolant source system has been installed as a stable system with storage tanks, pumps with the required parameters, and pipelines enabling its usage for boric acid solution make-up with the required flow rate in SFP. SFP may also be made up with clean water from an external vehicle. SFP and its cooling circuit are seismically reinforced and equipped with the corresponding instrumentation and control systems. Except for the time of refuelling, SFP shall always be covered with conservatively dimensioned covers providing its separation from the reactor hall. The area above the water level in SFP is vented through the filtration equipment. Except for the design solutions, SFP is also protected from the events by organizational measures including operational instructions and competent operation personnel. Stricter technical criteria of acceptability are used for the evaluation of SFP safety. Safety analyses confirm that SFP meets the defined safety requirements for all conditions of the nuclear installation dealt with in the design or in the extended design. Contribution of SFP to the frequency of a large early radioactive fluent leak in the MO34 neighbourhood (LERF) is very low (below the elimination criterion of  $1 \times 10^{-7}$ /year). To the above GLOBAL2000 opinion, ÚJD SR also add that such a location of SNF has its advantages - the emergency response system of the power plant has the ability to efficiently and without major restrictions use all available means to ensure heat removal from spent nuclear fuel stored in SNF. The disadvantages of placing SNF in a containment have been shown also during the Fukushima accident. No international safety standard (neither IAEA nor WENRA) stipulates the obligation to have SNF storage pool located outside or inside the containment.

The achieved level of safety of MO34 Unit 3 is described in Chapter 05.02 (Fulfilment of design requirements, concepts and objectives),<sup>44</sup> which is published on the ÚJD SR website. The said data allow a comparison with the achieved level of safety of other reactors.

- The basic information on the alternative method of heat removal from MO34 can be found in the document "Final Report from MO34 Stress Tests", chapter 1.3.2 publicly available on the website of ÚJD SR. Chyba! Záložka nie je definovaná. The alternative method of heat removal consists of secondary make-up of coolant into the steam generators and coolant drain through the safety valves of the steam generators or dump steam valves to atmosphere qualified for the given type of use (tested within the programme of non-active tests 3P062A, 3P087, and 3P063A).

The solution of ultimate heat removal is described in chapter 06.12 PSR of MO3&4 (Systems for mitigating the consequences of severe accidents),<sup>45</sup> which was published on the website of ÚJD SR as part of the documentation for the decision on the permit for commissioning Unit 3 of MO3&4.

The basic information on the provision of ultimate heat removal is also given in the "Final Report on Stress Tests MO3&4", which is published on the UJD website SR,<sup>46</sup> sub-chapter 1.3.2 from page 12 of the given document. Detailed information on ultimate heat removal are also provided in the National Report on Stress Tests of Nuclear Power Plants in Slovakia, which is available on the UJD website <sup>47</sup> All measures from the Stress Tests, which were implemented at Units 3&4 of Bohunice and 1&2 of Mochovce, were also implemented at Unit 3 of Mochovce. The Slovak Republic has started to implement measures for severe accidents management at its units before the Fukushima accident. The implementation of most hardware measures at Bohunice NI was completed

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<sup>44</sup> [https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Kapitola\\_5/\\$FILE/Kapitola\\_05\\_02.pdf](https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Kapitola_5/$FILE/Kapitola_05_02.pdf)

<sup>45</sup> [https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Kapitola\\_6\\_5/\\$FILE/Kapitola\\_06\\_12\\_00\\_00.pdf](https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Kapitola_6_5/$FILE/Kapitola_06_12_00_00.pdf)

<sup>46</sup> [https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Narodna%20sprava%20ZT%202011/\\$FILE/Fin\\_JEMO34.pdf](https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Narodna%20sprava%20ZT%202011/$FILE/Fin_JEMO34.pdf)

<sup>47</sup> [https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Narodna%20sprava%20ZT%202011/\\$FILE/Finalna\\_NS\\_zo\\_zatazovych-testov.pdf](https://www.ujd.gov.sk/ujd/WebStore.nsf/viewKey/Narodna%20sprava%20ZT%202011/$FILE/Finalna_NS_zo_zatazovych-testov.pdf)

before 2011. Due to the great publicity given to the Stress Tests after the Fukushima accident, the publication of the Action Plan after Stress Tests and the National Stress Test Report, the provision of information on measures implemented in the Slovak Republic after Stress Tests in the form of a presentation by ÚJD SR to the representatives of GLOBAL2000, ÚJD SR considers the statement by GLOBAL 2000 that at the Slovak Units there is no system for ultimate heat removal, as not correct and unprofessional.

- To provide the ultimate heat removal from the containment, there was the emergency coolant source system installed, one shower system qualified power supply of which can be provided by a separate diesel generator dedicated to severe accident management (SAM DG), and power supply of essential service water pumps from SAM DG enabled in the units WWER 440 in Slovakia. As for the WWER 440 containments, the implemented system of ultimate heat removal is equal to the filtered ventilation as proven by the analyses performed. (The filtered ventilation system mentioned in the Global 2000's statement is not suitable for WWER 440 containments due to a possible creation of vacuum and relatively low pressure achieved in the WWER 440 containment during a severe accident.) More detailed data on the system can be found in MO34 POSAR, chapter 6.12. *Chyba! Záložka nie je definovaná.*
- Except for the design solutions, both the alternative method of heat removal from MO34 and the ultimate heat removal from the containment are provided by the organizational measures including operational instructions and operation personnel.
- The basic information on the strategy of in vessel retention (IVR) of melted corium can be found in the document "Final Report from MO34 Stress Tests" publicly available on the website of ÚJD SR. *Chyba! Záložka nie je definovaná.* This strategy is ready to be used also at the management of severe accidents in the Bohunice units 3&4 and Mochovce units 1&2. It is also used on the foreign units type WWER 440 (e.g., Dukovany power plant) as well as on other nuclear units with a lower thermal output of the reactor. Correctness of the said approach towards severe-accident management was checked both experimentally and analytically by various organizations both in Slovakia and in the EU. More detailed data on the strategy can be found in MO34 POSAR, chapter 6.12. *Chyba! Záložka nie je definovaná.* Application of this strategy is accepted world-wide. This fact can be proven by the acceptance of the National Report of the SR from Stress Tests by ENSREG. Calling the strategy in question by Global 2000 has no technical grounds.

The safety evaluation has proven that MO34 met the defined safety requirements regarding management of the events in conditions of the extended design including the alternative method of heat removal from MO34 and ultimate heat removal from the containment. The safety evaluation was reviewed by an independent organization and checked at ÚJD SR within the inspections. Results of the safety evaluation submitted by MO34 were confirmed both by the review and check. Chairperson of ÚJD SR does not agree with the aforementioned statement of Global 2000. Referring to the references to specific documents, which are published on the ÚJD SR website and which contain the required information, she understands the GLOBAL2000 statement as unjustified.

## **102. Changes in temperature in the Hron river as a result of climate change**

According to the Global 2000 statement on their opinion of 14 September 2018, no response was provided regarding the climate impact on the water flow in Hron, which causes higher water temperatures ("Missing in both the EIA Report and the present document (untitled, starting 3.1) description of conditions and procedures under today's conditions and forecast of future development,

especially aquosity of the Hron river under current conditions and expected climate change (+ 2 °C and more), the maximum permitted temperature of the Hron river and the impact on the habitat, etc.“ Further: The condition states a decrease in the flow of Hron in twenty years (1980-2000) by 20%, but no new data will be found in the answer, despite the fact that almost another twenty years have passed. There is also a lack of data on further developments, scenarios for the supply of the power plant and other water consumers from Hron, etc.)“<sup>48</sup>

103. ÚJD SR in decision No. 156/2021, in response to Global 2000's statement on the grounds for the decision, stated: 'MO3&4 has a closed loop cooling system with cooling towers. Consumption of cooling water, which is pumped from the river Hron, is relatively low for such a cooling system.“ According to the knowledge of ÚJD SR, such a characteristic of the tertiary cooling circuit of the MO3&4 units is correct, because it states its most important properties:

- This is a cooling circuit with cooling towers,
- Water consumption from the Hron River for such a circuit is low.

Replenishment of raw water from the Hron River to the circuit only compensates for the losses from the circuit, in particular:

- - Evaporation and droplets through cooling towers,
- - Leaching of the circuit - organized discharge of water from the circuit to achieve its desired chemical regime.

The flow of make-up water from the river Hron through the raw water system from the water reservoir Veľké Kozmálovce (river kilometre 73.5 km) is relatively small. The maximum permitted consumption from the Hron River for 2 EMO1&2 units in operation is 2.4 m<sup>3</sup>/sec in maximum, 1.5 m<sup>3</sup>/sec - average consumption. The flow of cooling water through the cooling towers is up to 4x35,000 m<sup>3</sup>/hour. (approx. 39 m<sup>3</sup>/sec.), ie 25 times higher than the average flow of added water into the circuit. ÚJD SR by stating about “closed cooling system with cooling towers, for which the consumption of replenished cooling water from Hron is relatively low ...” only wanted to emphasize that the flow of replenished water into the circuit is much lower than the required flow for cooling turbine condensers.

104. The forecast of the future development of Hron's aquosity under current conditions and expected climate change (+ 2 °C and more) is available from the publicly available publication <sup>49</sup> on p. 179. There, in the upper right figure, the flow courses during the year are shown in the Brehy profile in the periods 1981 - 2012 according to measurements and calculated for the period 2069 - 2100 according to two climate change scenarios. The calculation takes into account climate change, which causes changes in the hydrological balance - evapotranspiration, changes in total precipitation, soil moisture, runoff due to urbanization, changes in vegetation, etc.

According to the graph on p. 179 of the mentioned monograph, there may be a decrease in the runoff in the summer months (July, August) compared to the current values (in the graph 1981-2012). In such cases, the limitation of consumption for the Mochovce nuclear installation is not excluded, even at the cost of reducing the output (shutdown) of the unit (s).

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<sup>48</sup> ) P. 10 par. 4 Appeal 1 by GLOBAL2000 Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the commissioning of Mochovce Nuclear Plant unit 3 (page 10(4)).

<sup>49</sup> Hydrological drought in Slovakia and prognosis of its development, at <http://www.shmu.sk/sk/?page=2049&id=922>



The maximum permitted temperature of discharged wastewater from the Mochovce nuclear installation is set in the Decision of the Nitra District Office at 30°C.

The calculation of the expected flow in Hron is given in the monograph<sup>50</sup> taking into account the expected change in water consumption from Hron by other customers.

From the available data it is possible to derive that Slovak Republic has qualified estimates of the impacts of hydrological drought on the flow of the river Hron. The evaluation of all operating conditions and permitted limits shows that even with a conservative approach, from the balance point of view, the permitted limits for surface water offtake and wastewater discharge, including temperatures, will not be reached or exceeded. The operation of the four units of the Mochovce NI will not adversely affect the condition of the Hron River.

Assessments of the interaction of the Hron River and the Mochovce NPP are in the following documents: PNM34631621 "Influence of increasing nominal power of units on raw water demand and consumption" and PNM34631622 "Engineering evaluation of Hron River interaction and EMO 1,2,3,4 operation".

Climate change is not a random process, but a process that can be predicted and monitored. The possible increased frequency of extreme weather conditions possibly caused by climate change is taken into account in the design. Based on monitoring, the possible impacts in the event of increase of the frequency will be taken into account by the existing periodic safety assessment mechanism.

105. Given the expected decrease in the flow of the Hron river in the summer months (the calculation is for the period 2069 - 2100), it is possible that it will be necessary to reduce the output of the Units to comply with the permitted offtake from the Hron and maintain favourable conditions in Hron in terms of environmental protection. The decisions of the water management bodies contain set maximum values of pollutants and temperatures with regard to the environment (Hron river habitat).

Chairperson of ÚJD SR considers technical arguments stated in items 99 to 102 sufficient and comprehensive and does not agree with the Global 2000's statements.

#### **106. Cooling circuit of Units MO3&4:**

In its statement to the concerned matter, GLOBAL2000 refers to ÚJD SR Decision No. 156/2021, p. 49, ad g), which states:

“Regarding the above statement by GLOBAL2000, ÚJD SR states the following: MO3&4 has a closed circuit cooling system with cooling towers. The consumption of cooling water, which is pumped from the river Hron, is relatively low for such a cooling system. The Mochovce NPP has procedures in place for operating personnel in the event of a reduction in the amount of water abstracted from the Hron River. From the point of view of fulfilling their safety function, water replenishment to cooling circuits can also be ensured from back-up sources. The Mochovce Nuclear Power Plant has established procedures for this purpose, which were tested at Units no. 1, 2 and 3 Mochovce as part of Stress Tests after the accident at the Fukushima NPP.”

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<sup>50</sup> Hydrological drought in Slovakia and prognosis of its development, <http://www.shmu.sk/sk/?page=2049&id=922>

Global 2000 declare that no closed circuit obviously exists there, water is released into the Hron river, and new water is pumped into the system.

This objection of Global 2000 was responded by ÚJD SR in detail in item 101 hereof.

Chairperson of ÚJD SR agrees with the argumentation of the first-instance authority which is still relevant and had already been objectively evaluated at the first-instance level.

107. At the end of Appeal No. 1, GLOBAL2000 summarizes the appeal and states that it summarized its suggestions and opinions which it had already submitted in the past and which were not answered or the answer was unsatisfactory. It also requests that ÚJD SR either provide direct answers to their questions or confirm that the Mochovce NPP does not meet the latest WENRA reference level requirements for new reactors. It also requests that ÚJD SR state that the nuclear power plant is only resistant to the impact of a small aircraft and that the WENRA reference levels for new reactors are not met either. GLOBAL2000 further states that it is not convinced, on the basis of documents known to it and various reports available to them, that the Mochovce 3 NPP will meet the latest requirements of the safety culture of nuclear facilities.

Chairperson of ÚJD SR does not agree with argumentation of Global 2000 and considers all their statements subjective. Her standpoints are explained in detail at every objected item of the Decision.

#### IV.

108. In Appeal No. 2, GLOBAL2000 repeated its statement from Appeal no.1, where they requested that the Decision and all related authorizations be suspended. In Appeal No. 2, GLOBAL2000 further state that they have obtained information on the results of tests of independent experts concerning the MO3 NI. Quote:

*“The supplier EUSEBI IMPIANTI - Italy was selected for the supply of a fixed fire extinguishing equipment for Units 3&4 of the Mochovce NPP. This company did not have suitable main components and their test for the most unfavourable sections for firefighting with the water mist system. The water mist system was designed according to other than Slovak regulations. Firefighters in the Slovak Republic have not been and still are not trained to be able to assess the design, hydraulic calculation, correct installation and testing according to the applicable regulations for water mist. We therefore request that tests be performed for both the horizontal and vertical fire protection sections with the largest volume. We also request that tests be performed for both horizontal and vertical fire protection sections with the most unfavourable hydraulic calculation, with the participation of independent water mist extinguishing specialists, the investor and GLOBAL2000. These tests will also include an assessment of the correctness of the design, installation, assembly and assessment of the suitability of the components used in the tested sections and the water source..”<sup>51</sup>*

In accordance with the basic design concept, the fixed fire fighting equipment based on water mist is used for two systems. In the design, the author of the basic design defined for the fixed fire fighting equipment the internationally applicable standard NFPA 750 “Standard on Water Mist Fire Protection Systems”, since no applicable European standard existed then for the respective fixed fire fighting equipment. This requirement was applied in the detail design and has been incorporated in the technical report of the fixed fire fighting equipment. In the territory of the SR, proving of

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<sup>51</sup> p. 1 GLOBAL2000 Second Appeal Against the First Degree Decision ÚJD 156/2021  
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properties and technical parameters of the components of fixed fire fighting equipment is regulated by the Act of the National Council of the SR No. 133/2013 on Construction Products and the related Regulation of the Ministry of Transport, Construction and Regional Development of the SR No. 162/2013 Coll. and the Act of the National Council of the SR No. 56/2018 on Product Conformity Assessment and Making Available on the Market of Specified Products (replacing Act No. 264/1999 Coll.). There were several improvements of the original proposal performed within the performance of the fixed fire fighting equipment project which are described in the DCA (design change assessment) N001\_0030 and stated in the technical report for larger design changes for DCA\_N001\_0030 modifications of the fixed fire fighting system. The most significant changes include:

- Supply of fire water for the fixed fire fighting equipment from the demi water system
- Increased capacity and changed material of fire water reservoirs
- Increased number of pumps to increase the efficient flow rate and to improve reliability of the system

Changed activation and deactivation sequences of the pumps

The Darcy-Weisbach method was used for the hydraulic calculation of the fixed fire fighting equipment which correlates the pressure loss caused by friction at the turbulent streaming with the average speed of the liquid streaming while taking into account geometric aspects and the equivalent length relating to the pipeline components. The certified software Hass 8.1 developed by HRS was used for the calculation.

Pressure components of the fixed fire fighting equipment have been designed and delivered upon the Directive 2014/68/EU of the European Parliament and of the Council on the harmonisation of the laws of the Member States relating to the making available on the market of pressure equipment. Directive ATEX 2014/34/EU was applied to the equipment used in potentially explosive atmosphere, LVD 2014/35/EU to the low-voltage electrical equipment, EMC 2014/30/EU to electromagnetic compatibility, and MD 2006/42/EC to the machinery. At the national level, the technical safety has been proven in compliance with the Regulation of the Ministry of Labour, Social Affairs and Family of the SR No. 508/2009 Coll. and the related governmental decrees. The design functionality and efficiency of the fixed fire fighting equipment (verification of the draft design) is documented by the report from the fire test performed according to the technical requirements of UNI CEN/TS 14972 – 2008 (the requirement was not defined by NFPA 750). The test was aimed at proving efficiency of the fixed fire fighting equipment in a cable channel under the conditions stated in UNI CEN/TS 14972 – 2008 upon which the fixed fire fighting equipment shall be tested for water mist in the tunnel structure container with cable trays along the walls in which the trays are installed. The test was performed in TE.S.I SRI LAB laboratories on 16 March 2011 at the presence of RINA, the independent third party issuing the permit. Results of the test checked and confirmed operability of the system designed by the supplier EUSEBI IMPIANTI. At the same time, compliance with the Regulation of the Ministry of Interior of the SR No. 169/2006 Coll. on Specific Characteristics of Fixed Fire Fighting Equipment and Semi-fixed Fire Fighting Equipment and on Conditions of their Operation and Regular Inspection Provision (hereinafter referred to as “Regulation of the Ministry of Interior No. 169/2006 Coll.”) was declared. A binding condition of submitting the detail design for review before the commencement of installation of the respective fixed fire fighting equipment was stated by ÚJD SR in the Decision No. 246/2008. This binding condition was met and the documentation was assessed by the Presidium of the Fire and Rescue Corps (hereinafter referred to as “Presidium”). Requirements of the Regulation in the respective sections and their fulfilment within the project and implementation of the fixed fire fighting equipment for water mist are presented in

detail in the technical report of the fixed fire fighting equipment. The supplier of the fixed fire fighting equipment system as well as subcontractors performing technical activities in the field of design, installation, and commissioning submitted special authorizations for the said activities in terms of Act No. 314/2001 Coll.

109. All components of the fixed fire protection water mist system must have adequate accompanying technical documentation, where the required properties are properly documented. In the case of the fixed fire fighting equipment, one of the main components is the nozzle. The properties of the nozzles were proved by appropriate tests in an accredited laboratory provided by the supplier. In addition to this test, Slovenské elektrárne, a.s. performed an independent nozzle test by another independent accredited laboratory, IFAB (Germany), on the basis of which the declared properties were confirmed.

110. As stated above, the validation test of the system pursuant to UNI/CEN TS 14972/2008 was performed before the fixed fire fighting equipment installation. After the installation, its compliance with the design was checked at the presence of the inspectors of ÚJD SR. The supplier EUSEBI IMPIANTI issued the certificate that the system had been designed and delivered in accordance with NFPA 750 (2010), UNI CEN/TS 14972 – 2008 and confirmed in the declaration “N° 04/04” that the system had been installed in accordance with the normative technical requirements.

111. After the end of the installation and consequent post-installation cleaning operations, individual tests were performed there to check operability of all system devices. Passability of all fire-fighting sections (hereinafter referred to as “FFS”) was checked. Operability of the system including its cooperation with the other systems was checked in accordance with the approved programmes 8P116, 8P117.

In compliance with the requirements of UNI CEN/TS 14972 – 2008, a mockup was created for the validation test in the design stage. As stated in the technical report by the contractor of the fixed fire fighting equipment, ...to the areas which cannot be fully simulated such as vertical cable rooms an engineering approach was applied, which extended the validity of the performed fact test on the MO3&4 design.

The arrangement of the nozzles in accordance with the criteria concerning the maximum protected space and the maximum height guarantees the extinguishing of a possible fire even in vertical cable climbing irons and cable spaces with reduced height. The location of the nozzles is designed so that water droplets smaller than 100 microns in diameter remain in space and fill the entire volume of the protected horizontal and vertical area. Vertical risers are fire-separated when moving to the next floor, and in case of firefighting activation, water mist is produced from all nozzles simultaneously.

The commissioning functional test performed has confirmed that the main design parameters of the fixed fire fighting equipment had been reached: The factors include discharge nozzles, permissible residual pressure at the farthest nozzle, flow at the lowest permissible pressure, permitted nozzle spacing, water flow.

The fire protection section of SGF fixed fire fighting equipment 310, with a max. required flow rate of 452 l/min. was tested with the largest number of nozzles 34, and with the required pressure at the farthest point of the fire protection section of 7.95 MPa. Based on the aforementioned parameters, it was defined as the least favourable from the aspect of demands for water supply, number of nozzles,

and required pressure. The commissioning functional test of the respective fire-fighting section was performed on 27 April 2021, with the participation of ÚJD SR and HaZZ Presidium. The test was performed towards the open nozzles and has met all the defined criteria of successfulness.

114. In the present case, on 30 June 2021, the HaZZ Presidium was asked for an opinion by letter reg. No. 4693/2021. ÚJD SR also attached the Global 2000 opinion as an annex to the letter. In the letter, ÚJD SR asked for clarification of the following areas:

- 1) exact procedure of approval of fixed fire protection equipment, especially water mist system used at Unit 3 of NPP Mochovce with references to applicable legislative requirements of the Slovak Republic,
- 2) procedure for verification of professional competence for design, production, installation, testing of the system before commissioning and periodic tests during operation of the system,
- 3) opinion on the information concerning the applied technical standard NFPA 750 in relation to the technical standards in force at the time in the Slovak Republic,
- 4) statement on the objected method of assessment and verification of the system design, hydraulic verifications and selection of FFS for validation functional testing.

The HaZZ Presidium sent its opinion by letter dated 19 August 2021, No. PHZ-OPP4-2021/003040-002.

Ad 1) The HaZZ Presidium requested to submit the Design Documentation of the Fixed Fire Protection Equipment (hereinafter referred to as the "DD FFPE") within the scope of the premises to be equipped with FFPE and in the scope of the assessment of the suitability of the extinguishing agent application. In the ÚJD SR Decision no. 246/2008 is requirement 8.6.t2), in which Slovenské elektrárne, a.s. were requested to submit DD FFPE before the start of the installation.

- On 10 August 2011, the HaZZ Presidium inspection took place, where a comment on the submission of the DD FFPE before the start of the installation was discussed.

- On 31 May 2012, in the opinion PHZ-OPP 2012/001806, it assessed the submitted DD FFPE and had no comments on the submitted design documentation (Detail Design) of a fixed fire-protection equipment with water mist - DPS 3.57.01 on the construction site of NPP MO3&4 in terms of fire safety.

- On 26 April 2021, the FFPE functional test was performed with the participation of the HaZZ Presidium in accordance with § 14 par. 1 of the Decree of the MoI of the SR no. 169/2006

Ad 2)

Section 11 par. 9 of Act no. 314/2001 Coll. on fire protection (hereinafter referred to as "Act No. 314/2001 Coll."), as amended from 1 January 2008 to 31 August 2015, contained the following provision:

"Only natural persons who have received training to the extent and content specified by the manufacturer may design, install, repair and inspect electrical fire alarm systems, spark extinguishers in pneumatic conveyors, heat and combustion products removal equipment, fixed and semi-fixed fire extinguishers, who have undergone a knowledge test and hold a specific certificate of professional competence. Verification of professional competence shall be carried out and a special authorization is issued by the manufacturer, if he is established in one of the EU Member States or

by his authorized representative in those countries for a period of five years. A manufacturer, who is not established in the territory of the Member States of the European Union, shall designate his authorized representative in the territory of the Slovak Republic to perform the above activities.“

MoI SR Decree No. 169/2006 is the implementing Decree to Section 5 (a) of Act No. 314/2001 Coll. This decree stipulates the specific properties of a fixed fire protection system and a semi-fixed fire protection system and the conditions of their operation and ensuring their regular inspection, and in § 3 it stipulates the specific properties of a fixed fire protection system.

- The requirement for inspection and functional test is regulated in § 14 of the Decree of the Ministry of Interior of the SR No. 169/2006 Coll. According to Section 14(1), a functional test must be performed in the presence of the body performing state fire supervision. The tests in question:

- 1. FFP system tests for HU363 - Unit 3,
- 2. FFP system tests for HU 310 - Unit 3,

were performed on April 27, 2021 in the presence of representatives of the HaZZ Presidium. Confirmation of participation in the functionality test is given in the FFPE operating log.

115. Periodic tests during the operation of the system are performed according to § 13 of the Decree of the Ministry of Interior of the SR no. 169/2006. Inspection of a fixed fire protection system (provided and responsible for its implementation is the owner (administrator) of the property in which FFPE is installed. Inspections are performed daily, weekly, monthly, quarterly, semi-annually, annually. Daily and weekly inspection is performed by persons authorized to operate FFPE. Quarterly inspection and semi-annual inspection is performed by a person authorized to maintain FFPE, who is demonstrably trained by the manufacturer, authorized representative or natural person who has a special license on the professional competence to install and repair FFPE. Quarterly and semi-annual inspections are carried out in the presence of a professionally qualified person to perform the function of fire protection technician. Annual inspection and inspection of FFPE according to § 13 par. 3 is performed by a natural person with a special authorization on professional competence for the installation and repair of FFPE, of which he shall issue a written document. If an annual inspection is carried out, it is not necessary to carry out inspections in a short period of time falling within the date of the annual inspection.

Ad 3) and Ad 4) The HaZZ Presidium informed ÚJD SR that it does not have the competence to take a position on information on the applied technical standard NFPA 750 or to provide an opinion on the objected method of assessment and verification of the system design, hydraulic verifications and selection of FFSs for validation functional testing. According to § 3 par. 5 of the Decree of the Ministry of Interior of the SR no. 169/2006 "The characteristics of a fixed fire protection system must be specified in a technical standard,<sup>52</sup> verified according to special regulation<sup>53</sup> or calculation. The properties of FFPE, which are not determined by a technical standard or technical specification, are

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<sup>52</sup>) eg STN EN 12259-2 Fixed fire protection equipment. Parts for sprinkler and water spray equipment. Part 2: Wet valve stations, STN EN 12259-3 Fixed fire protection equipment. Parts for sprinkler and water spray equipment. Part 3: Dry valve stations, STN EN 12094-3 Fixed fire protection equipment. Gas components. Part 3: Requirements and test methods for manual starting and control devices, STN EN 12416-1 Fixed fire protection equipment. Powder fire extinguishers. Part 1: Requirements and test methods for components, STN EN 13565-1 Fixed fire protection systems. Foam systems. Part 1: Requirements and test methods for components.

<sup>53</sup>) Act 90/1998 Coll. on construction products as amended.

Act 264/1999 Coll. on technical requirements for products and on conformity assessment

determined by the manufacturer of a fixed fire protection system. "The application of a specific STN is only of a recommendatory nature. In its opinion, the Presidium of the HaZZ informed that it is within the competence and responsibility of a person with professional competence to design FFPE of the said fire-fighting equipment with the required properties.

The HaZZ Presidium informed that it does not have and did not have a person with professional competence (professional competence required by Act No. 314/2001 Coll. (Effective from 1 Jan.2008 to 31 Aug.2015)) to design FFPE. The HaZZ Presidium requested the submission of the DD FFPE only to the extent of which premises are to be protected by the FFPE and only to the extent of the assessment of the suitability of the use of the extinguishing agent.

116. Processing DD FFPE is fully within the competence of a person with professional competence to design FFPE. The author of the DD FFPE is fully responsible for it, so that the DD FFPE is processed on the basis of valid generally binding legal regulations, technical regulations and technical knowledge. The HaZZ Presidium considers that if GLOBAL2000 claims that the FFPE is designed incorrectly, it recommends substantiating this statement with documents prepared by a person with special authorization and submitting them to the author of the DD FFPE for comment.

On 18/11/2021, another commissioning functional test of the fixed fire fighting equipment exceeding the mandatory regulatory and normative framework of the requirements was performed for the vertical FFS 351 situated in the containment area. Representatives of Presidium and the independent company Risk Consult participated on the test together with ÚJD SR. Global 2000 were not invited due to the culminating third wave of the pandemic caused by COVID – 19. Another reason was represented by the anti-epidemic measures of the chief hygienist adopted by Regulations No. 258/2021 and No. 259/2021 published in the Journal of the Government on 18/11/2021. The test proved complete operability of the system. The achieved values met all criteria of the independent assessment relating to the production of water mist with the required parameters from IFAB (Germany). The acceptable result of the test performed is supported by the opinion of a participating independent expert of Risk Consult as well as of the representatives of Presidium. Multiple functional testing of the fixed fire fighting equipment system has proven that the system met all regulatory and normative requirements as well as those defined by the design.

To confirm the chosen conservative approach in the field of fire protection of cable premises in the MO34 Project, we provide full-scope validation tests of the high-pressure fixed fire fighting equipment system performed between 06/12/2021 and 13/12/2021 in the accredited laboratory PAVUS, a.s., in Veselí nad Lužnicí. Although the set of the tests performed was mainly designed for validation of the EMO unit 4 system, its added informative value also applies to the fixed fire fighting equipment system installed in the unit 3 since both fixed fire fighting equipment systems are of the same design. The tests were prepared and performed taking into account principles and requirements of the technical specification CEN/TS 14972:2008 (valid at the time of designing and implementing the unit 3 fixed fire fighting equipment system) with regard to the currently applicable standard STN EN 14972:2020 in which performance of the test as well as configuration of the true mockup in the scale 1:1 are described in more detail. The testing configuration was as close as possible to the real conditions of cable installation in the MO34 Project and, at the same time, took into account the strictest requirements of STN EN 14972:2020. However, it was proven in a reliable and verifiable manner that the fixed fire fighting equipment installed in the unit 3 of the EMO nuclear installation is highly efficient and that the overall concept of cable area fire protection has

large safety reserves and meets not only the design criteria but also the strictest criteria defined in the currently applicable relevant normative documentation. This was proven with applying as conservative approach as possible at the development of test scenarios and configuration of the equipment in the test chambers. An inspector of ÚJD SR participated on the most relevant tests. An independent observer from Risk Consult as well as an expert from the Institute for Applied Fire Safety Research IFAB were present at the tests too.

In conclusion, ÚJD SR states on the GLOBAL2000 opinion that the FFPE system based on water mist was designed and tested according to a precisely specified standard for the given equipment. The conformity of the implementation and the design was confirmed by conformity tests with the participation of ÚJD SR inspectors. ÚJD SR inspectors, representatives of HaZZ Presidium as well as independent experts took part in the system tests. Test protocols and reports including photographs and video records are issued from the tests.

The GLOBAL2000 request for review of FFPE documentation is unacceptable since the said technical documentation of the fixed fire fighting equipment as well as the documentation documenting the course and results of the tests are in possession of SE, a. s. These documents may only be published upon the consent of SE, a.s. and the companies the tests were performed by.

Based on the aforementioned information and the tests performed, she does not agree with the Global 2000's opinion.

At the end of Appeal No. 2, GLOBAL2000 stated that it is appealing against the ÚJD SR Decision no. 156/2021, because on the basis of the materials available to them, the MO3 NPP will not comply with the highest standards of nuclear safety culture.

## V.

117. GLOBAL2000 in its appeal against the ÚJD SR Decision no. 156/2021 often uses the statement: "... the public has no information about the Mochovce nuclear power plant ..." ÚJD SR considers such a statement to be unsubstantiated, tendentious and purpose-made. To substantiate such an assessment, ÚJD SR state the following facts:

It is clear from the ÚJD SR's website and other communication activities that ÚJD SR sufficiently and transparently inform the public about important issues related to the safety of nuclear installations in the Slovak Republic, including MO3&4, as well as all the actions of ÚJD SR in connection with these facilities, in individual cases even beyond what other countries are doing (e.g. making available the full and abridged version of the MO3&4 Pre-operational Safety Report).

- The ÚJD SR website in the section "Informing the public" and the subsection "Information on MO3&4" currently contains a total of 47 different pieces of information on the actions of the administrative authority in administrative proceedings and on the status of work at the MO3&4 nuclear facility and control activities of ÚJD SR inspectors in MO3&4.

Link: <https://www.ujd.gov.sk/informovanie-verejnosti/informacie-k-mo-34/>

- The parties to the proceedings and the public had the opportunity to participate in the inspection of the MO3&4 buildings associated with the local survey on 27 November 2019. The GLOBAL2000 representative and local government representatives from the Mochovce area used this opportunity.



Link: <https://www.ujd.gov.sk/mo-34-ustne-pojednavanie-s-miestnym-zistovanim/>

- ÚJD SR published on their website a summary of the very basic data from the Pre-Operational Safety Report, which is a basic communication tool between the regulatory authority and the permit holder / future permit holder.<sup>54</sup> This document is written in an comprehensible form and to a reasonable extent for a relatively detailed acquaintance with the MO3&4 design.

Link: <https://www.ujd.gov.sk/mo-34-ppbs-zhrnutie-zakladnych-udajov/>

- ÚJD SR provided dozens of information to parties to the proceedings and the public at their request in accordance with Act no. 211/2000 Coll. and answered questions from journalists on the state of work at the Units 3 & 4 of Mochovce nuclear installation.

The Civic Information Commission (OIK) works in the Mochovce region, whose members are the mayors of towns and municipalities of the Mochovce region, and whose meetings are attended by the top representatives of ÚJD SR and representatives of Slovenské elektrárne, a.s., working in the Mochovce NI. The public of the region is informed about the current state of completion of MO3&4 through the OIK website (see: <https://www.zdruzeniemochovce.sk/>) and also directly through their elected local government representatives. On 23 September 2021, their last meeting took place. Representatives of ÚJD SR were also present at their meetings and presented complete information on the progress and status

- of the permitting process of the MO3 nuclear installation. They summarized information from the past but also the status applicable as of the date of the meeting. They also presented information regarding contents of the appeals filed by Global 2000. Finally, they responded to the answers of participants. The second part of the information provided was the technical condition of the construction, information on the planned and performed tests and on commissioning from the technical point of view.

- On 11 August 2021, mayors of municipalities in the neighbourhood attended the excursion of the MO3 nuclear installation. Representatives of Slovenské elektrárne, a.s. replied to their questions regarding the entire nuclear installation and its operation not only outside but also inside the structure. They were allowed to have a look at the turbine hall, but also at the controlled area, control room, and other buildings. Chairperson of ÚJD SR was open to any questions asked by the mayors and the public.

- In September 2019, ÚJD SR invited the IAEA Pre-OSART (Pre-operational Safety Review Team) Mission for an international safety review with a participation of an observer from Austria. Pre-OSART Follow-up Mission was in September 2021.

- This 18-day-long mission consisting of 17 members from around the world as well as observers from Austria, the Russian Federation, and Italy was aimed at assessing whether the IAEA safety standards are adhered to and at proposing potential improvements. Another aim was to check whether the commitment and intent of complying with the top safety standards is proven before the commissioning and whether the employees of Slovenské elektrárne, a.s., are trained in achieving the goals. Chairperson of the mission expressed the belief that this is happening in the MO3 nuclear installation. Within the mission, it was dealt with the following areas: nuclear safety management, radiation protection, emergency preparedness, human resources, commissioning, personnel preparation and knowledge, operational experience, and others. IEAE have pointed out several specific areas to be used as examples for other countries. Specifically: implementation of the latest standards during the reactor cooling as well as at immediate shutdowns, implementation of the online

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<sup>54</sup> Page 2, BNS 1.1.2/2014, Scope and contents of the safety report.

tool evaluating the expected classification and development of situations during emergency states and communicating with external entities and with the public regarding the condition of the nuclear installation.

- ÚJD SR have also been informing on the safety condition both of MO3&4 and other nuclear installations in Slovakia by means of presentations of their Chairperson and other experts in various TV shows. ÚJD SR provide an example:

- <https://www.ta3.com/clanok/200702/treti-blok-elektrarne-mochovce-mozu-spustit-je-pripraveny>
- <https://energoklub.sk/sk/clanky/sefka-ujd-povolenie-je-iba-zaciatok-proces-spustania-tretieho-bloku-mochoviec-potrva-najmenej-pol-roka/>
- <https://slovensko.rtvs.sk/rubriky/host-dobreho-rana/256952/host-drs-marta-ziakova-predsednicka-uradu-jadroveho-dozoru>
- <https://www.iaea.org/newscenter/news/iaea-general-conference-elects-marta-ziakova-of-slovakia-as-president>

- ÚJD SR organizes bilateral meetings with the relevant authorities of neighbouring states, at which it informs about the safety state of MO3&4, as well as other nuclear facilities in the SR. The last bilateral meeting with Austria was held in May 2021 online. The last quadrilateral meeting with Slovenia, the Czech Republic, and Hungary was held in 2019.

- ÚJD SR publishes an Annual Report every year, in which, among other things, it informs the public about the safety state of MO3&4, as well as other nuclear facilities in the SR. The annual report is available on the Authority's website.

## VI.

17. On July 26, 2021, ÚJD SR were delivered the opinion of the Transport Office registered under reg. No. 5587/2021. The Transport Authority responded to the letter of ÚJD SR - Notification of the commencement of the second-instance proceedings, No. 5045/2021, dated 15 July 2021, delivered to the Transport Authority as the authority concerned. In it, the Transport Office informed ÚJD SR that Slovenské elektrárne, a.s., issued an opinion on the as-built documentation of the aircraft obstacle marking of the construction, no. 3642/2021/ ROP-003-P / 1674 of 22 January 2021, specifying the conditions for the use of Project 3 of the WWER 4x440 MW Nuclear Power Plant. The opinion was also delivered to ÚJD SR on 22 January 2021 electronically. In it, the Transport Office claims that the aircraft obstacle marking of the group obstacle - 4 pieces of forced draft cooling towers, was carried out in accordance with the e-mail communication and according to the final design sent by email on 12 November 2018. Two pcs of LM 100 MIOL B signals on towers (1 pc LM 100 MIOL B signal on each of the towers SO 851/1-05 and SO 851/1-08) and 4 pcs of low-intensity signals type B (2 pcs of LS 710 LIOL B signals on each of the towers SO 851/1-06 and SO 851/1-07), which are switched on by means of a twilight switch built into the individual signal lights. In this opinion, the Transport Authority requested that the following conditions be observed when using the building:

a) Additional change in the height of the building and placement of other equipment (structures, antenna systems, etc.) on top of the cooling towers, which would exceed the level of the lower edge of the signal filter is possible only with the consent of the Transport Authority. Placing equipment below the level of the lower edge of the signal filter is not subject to the approval of the

Transport Authority, provided that the operation of the aircraft obstacle marking is not interrupted during their placement.

b) The owner of the construction is obliged to ensure the operation, maintenance and renewal of the aircraft obstacle marking of the building so that the group of obstacles is sufficiently visible against the background and the smooth operability of the marking of the building with light aviation obstacle marking is ensured. In the event of a malfunction or failure of the construction marking by light obstacle marking, the owner is obliged to immediately report this fact to the Transport Authority with the expected date of elimination of the defect.

c) Every change of owner or removal of a building, the owner or the new owner is obliged to notify the Transport Office within 7 days from the day when the change occurred, or removal of the building. It is sufficient to send the information electronically to the address: ochranne.pasma@nsat.sk.

119. The Transport Authority further pointed out in this opinion that it was not aware that the renewal of the aircraft obstacle marking of cooling towers would be part of the Mochovce WWER 4x440 MW Project 3. Therefore, the Transport Authority also sent this opinion to ÚJD SR.

The Transport Office informed that it had consulted the incorporation of comments with an employee of ÚJD SR acting at first instance. However, the conditions of the Transport Office were not incorporated in the ÚJD SR Decision no. 156/2021.

120. As these conditions were not incorporated in the first-instance proceedings, the second-instance body in accordance with Section 59(1) of the Administrative Procedure Code, supplemented the evidence, in particular by examining the opinion of the Transport Authority and requesting additional information. In it, the body informed the Transport Authority that their opinion had been incorporated by Slovenské elektrárne, a.s. to operating regulation 8TP/2022 Pumping station for circulating and non-essential service water, PNM 34702022, rev. 07, chapter 5.6. ÚJD SR inspectors verified the incorporation of the requirements of the Transport Office into the said regulation during the inspection no. 417/2021 in Mochovce. In the same letter, ÚJD SR requested the opinion of the Transport Office, asking whether such a method of incorporation is sufficient.

This is to meet the following requirements:

a) an additional change in the height of the construction and the placement of additional equipment at the top of the cooling towers, which would exceed the level of the lower edge of the signal filter, was carried out only with the consent of the Transport Authority; the placement of equipment below the level of the lower edge of the signal filter is not subject to the approval of the Transport Authority, provided that the operation of aircraft obstacle markings is not interrupted during their placement,

b) operation, maintenance and renewal of aeronautical obstacle markings of the construction is provided in such a way that the group of obstacles is sufficiently visible against the background and that the smooth operability of the marking of the construction with illuminated aviation obstacle markings is ensured; in the event of a malfunction or failure of the construction marking by light obstacle marking, the owner is obliged to immediately report this fact to the Transport Office with the expected date of removal of the defect,

c) every change of owner or removal of the building, shall be notified to the Transport Office by the owner or the new owner within 7 days from the day when the change occurred or from removal of the building.

Transport Office informed by letter no. 14468/2021 / ROP-006-P / 36472a36892 of 3 September 2021 that the method of assurance of compliance with the requirements from the view of civil aviation interests is considered sufficient.

121. According to § 59 par. 2 of the Administrative Procedure Code, the appellate body is entitled to amend or cancel the decision, or to cancel the appeal and confirm the decision. The Chairperson of ÚJD SR did not see the reason for the annulment of the ÚJD SR Decision no. 156/2021 and the return of the case to the first instance body, as the proof of the opinion of the Transport Office was performed in full at the second instance and the first instance body does not object to its incorporation. The Chairperson of ÚJD SR also agreed with the content of the opinion of the Transport Office.

The Chairperson of ÚJD SR considered it to be the most economical in terms of the purpose and duration of the administrative proceedings to supplement the evidence regarding the opinion of the Transport Office. The Chairperson of ÚJD SR believes that supplementing the evidence by ÚJD SR will achieve the goal pursued by the application submitted by Slovenské elektrárne, a.s. and at the same time the objective pursued by the opinion of the Transport Authority.

## VII.

### 122. **Fulfilment of a part of the condition B1 from Decision no. 156/2021**

ÚJD SR in Decision no. 156/2021 bound the permit (B) for the commissioning of a nuclear facility in the scope of buildings and facilities for the operation of Unit 3 and in the scope of buildings and facilities common to Units 3&4 used for the operation of Unit 3 pursuant to § 5 para. 5 and § 8 par. 1 (c) of the Atomic Act to meet the following condition, the fulfilment of which was to be ensured by Slovenské elektrárne, a.s. within the given deadline. The condition was:

B.1 An obligation to complete the tests "Recovery and setup of boron acid solution neutron analysers for Unit 3 Mochovce NPP" according to the valid "Methodology of boron meter control and calibration of EXCORE detectors by external neutron source" according to the program "Comprehensive test of the EXCORE system". Testing of these devices can be performed only after the creation of the relevant technical and organizational conditions at Unit 3, for which the ÚVZ SR issued a binding opinion no. OOPŽ / 5413/2020. These technical and organizational conditions will be fulfilled by Slovenské elektrárne, a.s. in accordance with the schedule of preparation of Unit 3 for commissioning in a reasonable time before loading the first fuel assembly into the reactor of Unit 3, and the obligation to complete tests according to programs P001 (Program of tests and erection work on the reactor and on the reactor concrete shaft equipment) and 3P004 (Reactor Pressure Vessel Steel Sampling Program), the completion of which is included in the stage of preparation of the reactor for fuel loading for technological reasons, as well as tests under program 3P142 ("Primary Circuit Measurements Test Program"), the completion of which is linked to the achievement of the shutdown boron acid concentration in the primary circuit of Unit 3 before loading fuel into the reactor, and the obligation to complete tests of turbine hall and downstream equipment and systems secondary circuit according to the list and in accordance with the schedule prepared by Slovenské elektrárne, a.s., and which is more precisely specified in the Final Report Unit 3 according to Annex 1 part C (s) of the Atomic Act and in accordance with Annex 4 part B part I section A para. 5 and par. 7 of Decree no. 430/2011. The equipment and systems in question are currently in conservation mode, which protects

them from corrosion attack, resp. additional modifications are being made to the BÚK system in order to improve its operating characteristics. Slovenské elektrárne, as, should further cancel the conservation of these facilities in a reasonable time before loading the first fuel assembly into the Unit 3 reactor so as to create sufficient time to complete the necessary tests and at the same time minimize the exposure time of these equipment to corrosive processes and in line with a schedule, ensured the testing of BÚK and the downstream facilities so that their tests were completed in full to start the power testing of the unit. Furthermore, the obligation to complete the equipment tests according to the Program 3P146 "Chemical Monitoring System Testing Program" after finetuning of the SW.

Condition B.1 must be met by Slovenské elektrárne, as at the latest by the start of commissioning of Unit 3, except for the part in which it is explicitly stated that it is to be met at the start of the Unit's power testing, and which is related to the completion of BÚK modifications. Slovenské elektrárne, a.s., is obliged to document the fulfilment of condition B.1 by a written evaluation of the course of tests and fulfilment of their success criteria, which was obliged to submit to ÚJD SR in the format of an addendum to the Final Report of Unit 3. Failure to meet condition B.1 would result in the inability of the nuclear installation to start the physical start-up phase, resp. inability to start the power testing phase (in that part of condition B.1, where explicitly stated and which is related to the BÚK). The commencement of the physical start-up stage without meeting condition B.1 could be qualified as an administrative offense under § 34 para. 2 or par. 3 of the Atomic Act.

Slovenské elektrárne, a.s. performed tests according to 3P004 programs (Reactor pressure vessel steel sample handling program) completion of which is included in the stage of preparation of the reactor for fuel loading for technological reasons. The final protocol on the implementation of the NaS program (protocol no. 3P004 / UK) from the tests declared the successful completion of the tests in all required operations the second-instance authority was informed of by letter no. 8682/2021 of 24 Nov.2021, registered under No. 8779/2021, as the fulfilment of part of the condition. By the notification in question and by performing one test from condition B1 of Decision no. 156/2021, Slovenské elektrárne, a.s. met condition B1 in part and to the extent relating to the 3P004 programme. Slovenské elektrárne, a.s. performed equipment tests according to program 3P146 "Program of chemical monitoring system tests" after SW finetuning for the given system. The second-instance body was informed of this fact by letter, reg. No. 8684/2021 of 24 Nov.2021.

Based on the evaluation of the documentation submitted (test protocols), the inspectors of ÚJD SR stated that the testing of the chemical monitoring system is performed to the extent necessary for the future operation of Unit 3 of MO3 & 4. All detected defects are properly recorded in the system test reports and a deadline is set for their elimination. The detected defects do not prevent the use of the chemical monitoring system. Based on the evaluation, ÚJD SR considers the cited part of condition B1 of the not valid ÚJD SR Decision no. 156/2021 as fulfilled. The Chairperson of ÚJD SR, as a second-instance authority, after acquainting herself with the results of the tests, agreed with the conclusion of the first-instance body and thus considers condition the part of the condition B1 to be fulfilled.

## VIII.

123. On 13 August 2021, an appeal procedure was held for Appeal no. 1 and Appeal no. 2. The Appeals Commission of the Chairperson of ÚJD SR was established pursuant to Section 61(2)

of the Administrative Procedure Code and according to the Principles of the Slovak Government for the Establishment and Operation of Special (Appeal) Commissions approved by the Resolution of the Government of the Slovak Republic No. 1211 of 6 November 2002 upon the ÚJD SR Chairperson's appointment decrees of 15 July 2021 The Appeals Commission discussed all issues concerning the dossier documentation from the proceedings of the first-instance body, including both appeals filed, the submission report on the first-instance material, the opinion of Slovenské elektrárne, a.s. and the results of the supplementary evidence. The members of the Appeals Commission expressed their views on all unclear facts arising from the dossier. During the meeting of the Appeal Commission, no procedural or substantive errors of the first instance body were revealed. The members of the Appeal Commission recommended to the Chairperson of ÚJD SR to dismiss both appeals and to confirm the Decision, so that the opinion of the Transport Office was incorporated into the operative part of the Decision.

## IX.

124. The Chairperson of ÚJD SR examined the dossier in its entirety and the contested decision of the administrative body of the first instance in its entirety. On the one hand, it was a review of the facts as well as of the procedural steps and the application of the substantive rules in force by the first-instance authority. The inquiry also concerned the factual accuracy of the first-instance decision as well as the legality of the first-instance authority's action. It may be stated that examination of the file and the contested decision did not reveal any facts which would affect the factual and legal findings of the case and which would fundamentally alter the substance of the case on which the reasoning and decision of the first instance body were based.

It can be stated that after the evaluation of the technical side of the matter, not one specific technological datum was found that GLOBAL2000 would challenge, therefore it is not possible to state a technological error in the reasoning of the first instance body. Both appeals of Global 2000 are based on false or unverified information, they are based on incorrect or tendentious interpretation of facts, findings and decisions of ÚJD SR.

Based on such procedures, GLOBAL2000 submitted requirements that have no support in the legislation of the Slovak Republic, nor in the currently valid international safety standards. The safety assessments of MO34 by Global 2000 are unfounded and incorrect. ÚJD SR in accordance with legal requirements requires that safety-relevant design solutions or their changes before submission to ÚJD SR or subsequently, be assessed by an independent qualified organization in accordance with the relevant requirements to ensure the quality of such assessments. The texts of the Appeals do not respect and they are even not in line with the comments by the representatives of the Austrian government and official partners, and are focused on the possible poor quality of the performed works, but not on the inadequate procedure applied by ÚJD SR in approvals or with regard to nuclear safety of MO34 units.

125. ÚJD SR and the Chairperson of ÚJD SR, in its decision-making activities, took as a basis the requirements determined by generally binding legal regulations. The Atomic Act binds the issuance of an authorisation or permit to meeting the requirements stipulated by law, while § 5 par. 5 of the Atomic Act gives ÚJD SR the opportunity to bind its decisions to meeting certain conditions. After examining the documentation, the Chairperson of ÚJD SR concluded that Slovenské elektrárne, a.s., the documentation was submitted by met the requirements for the issuance of a permit pursuant to § 5 para. 3 (f) of the Atomic Act, § 5 par. 3 (b) of the Atomic Act, pursuant to § 83 of the Building

Act to the extent specified in the operative part of the ÚJD SR Decision no. 156/2021. Both appeals by GLOBAL2000 contained one basic request to „suspend“<sup>55</sup> the Decisions and all permits issued in connection with the MO3 NPP. ÚJD SR considers this request to "suspend" these proceedings to be either a proposal to suspend, stay or cancel the decision and return it to the new proceedings. However, no such further proposal was made by GLOBAL2000. The presented appeals mainly represent a demonstration of GLOBAL2000's dissatisfaction with the construction of the MO34 NI. GLOBAL2000, as an organization supporting environmental protection, has categorically rejected use of nuclear energy for peaceful purposes as a source of electricity since the beginning of its existence. Also the document “Lessons not Learned from the Fukushima Accident Risks of the European NPPs 10 years later”, to which GLOBAL 2000 refers twice in its arguments, the document is drafted by like-minded persons or by opponents of nuclear energy a priori. Such a source cannot be considered as an internationally respected and objective source of information, nor as a basis for a decision when issuing permits for the use of nuclear energy. The positions of ÚJD SR are the result of many checks, evaluations, inspections and several years of administrative considerations.

126. The basis for issuing this Decision is the individual types of documentation listed in the grounds of this Decision, or those that are part of the dossier documentation of the first instance body. Supplemented opinions for the second instance body are also the basis for issuing this Decision. These are partial approval or assessment procedures that took place separately or in parallel with the procedure for issuing this permit. Chairperson of ÚJD SR considers that the documentation on the basis of which ÚJD SR decided is sufficient and represents a substantive basis for issuing a permit.

Based on the above facts, Chairperson of ÚJD SR decided as stated in the operative part of this Decision.

#### **Advice of remedies**

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<sup>55</sup> P. 1 par. 2 GLOBAL2000 Second Appeal Against the First Degree Decision ÚJD 156/2021 Authorizing the Commissioning of Mochovce Nuclear Plant Unit 3.

P. 1 par. 2 Second appeal against the first degree decision ÚJD Sr 156/2021 authorising the commissioning of Mochovce nuclear power plant unit 3.

According to § 61 par. 2 second sentence of the Administrative Procedure Code, this decision is final and it is not possible to appeal against it (file an appeal). After the entry into force of this decision, this decision may be reviewed by a court pursuant to Section 177 et seq. of Act No. 162/2015 Coll. Administrative Procedure Code as amended (hereinafter referred to as “Administrative Procedure Code”). The deadline for filing an appeal against administrative procedure under Section 181(1) of Administrative Court Procedure Act for natural and legal persons is two months starting on the day following the decision announcement. The deadline for filing an appeal against administrative procedure under Section 181(3) of Administrative Court Procedure Act for the public involved is two months starting on the validity day of the decision.

Ing. Marta Žiaková  
Chairperson, Nuclear Regulatory Authority of the  
Slovak Republic

Delivered by public decree:

1. Slovenské elektrárne, a. s., Mlynské nivy 47, 821 09 Bratislava
2. Slovenské elektrárne, a. s., Závod 3. a 4. blok elektrárne Mochovce, 935 39 Mochovce
3. GLOBAL2000 – Friends of the Earth, Dr. Reinhard Uhrig, Neustiftgasse 36, A-1070 Wien, Austria
4. GLOBAL2000 – Friends of the Earth, Ms. Patricia Lorenz, Neustiftgasse 36, A-1070 Wien, Austria
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